



FLIGHT

&
The AIRCRAFT
ENGINEER.



First Aero Weekly in the World.

Founder and Editor : STANLEY SPOONER.

A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport.

OFFICIAL ORGAN OF THE ROYAL AERO CLUB OF THE UNITED KINGDOM.

No. 472. (No. 2, Vol. X.)

JANUARY 10, 1918.

[Weekly, Price 3d.
Post Free, 4d.]

Flight.

and The Aircraft Engineer.

Editorial Office: 36, GREAT QUEEN STREET, KINGSWAY, W.C. 2.

Telegrams: Truditur, Westcent, London. Telephone: Gerrard 1828.

Annual Subscription Rates, Post Free.

United Kingdom ... 15s. 2d. Abroad... .. 20s. 6d.

CONTENTS.

Editorial Comment :	PAGE
The Air in 1918	29
Br'er Fox at his Tricks	30
Industry after the War	30
The British Museum	32
A Matter of Parachutes	32
The Air Council	33
Honours	34
The 260 h.p. Mercedes Aero Engine	35
The Roll of Honour	38
In the Hands of the Enemy	39
Aviation in Ireland	40
Correspondence	40
A Message from Trier	41
Airisms from the Four Winds	45
Personals	47
Two British Crack Pilots	48
Armchair Reflections, By the "Dreamer"	49
The British Air Services	50
Aircraft Work at the Front. Official Information	52
Side-Winds	53

NOTICE OF REMOVAL.

The Offices—Editorial and Advertisement—of
" FLIGHT and The Aircraft Engineer "

are now at

36, GREAT QUEEN STREET, KINGSWAY, W.C. 2.

Telephone No.: Gerrard 1828.

Telegraph Address: "Truditur, Westcent, London."

EDITORIAL COMMENT.

" Newspapers are an essential part of our war organisation."—
(Sir Auckland Geddes, Minister of National Service.)



IN a recent issue of the *Daily Telegraph* Mr. Joynson-Hicks has a thoughtful and well-reasoned letter on "The Air in 1918." He begins by pointing out that it is clear that in 1917 there has been to a great extent equality of material in the air forces at the front. The very mobility of air power involves

temporary supremacy at a given spot at a given time for whichever Power chooses to concentrate. For example, when we were the attacking force, as at Vimy Ridge, Messines, and Cambrai, we had the mastery of the air by reason of the invisible concentration which we had prepared; on the other hand, in the case of the German attacks at Lombartzyde,

Italy, and the surprise thrust at Cambrai, the mastery passed temporarily to them, and so it must be until one side or the other, by great and persistent manufacturing effort, can present its generals with an overwhelming number of high-powered machines.

What, he asks, of 1918? As he rightly contends, war is generally won by invasion of the enemy's country. All history from the time of Caesar to the period of the Russo-Japanese War teaches this. As a matter of literal fact, the writer is not absolutely correct in his thesis, else the present war would have been lost by the Allies and won by the enemy long ago if victory depended entirely on invasion. Invasion to be victorious must be accompanied by a most important corollary—the destruction of the armed forces of the enemy. It is because the invasion of Belgium, France and Italy was not so accompanied that Germany, in spite of her occupations of hostile territory, is to-day faced with certain defeat in the field—a defeat which will be brought about by that destruction of her armies of which we have spoken as a prime necessity for victory. That destruction does not necessarily imply the killing or capture of the last German soldier. On the contrary, destruction within the military meaning of the word may come about as the result of a variety of causes, as, for example, through disorganisation caused by internal trouble within the State concerned, or through political collapse, or from any one or more of a dozen causes leading up to the termination of the existence of the armies as a cohesive fighting force. We do not for a moment desire to split hairs, or to be at all critical, but it is as well to get the primary arguments right.

However, to continue with Mr. Joynson-Hicks' letter. As he rightly contends, the German raids on our own towns and the Allied reprisals against Hun towns are in the nature of invasion on a small scale. They have not had, and cannot have, any decisive effect on the course of the war. But it would be very different if we or the enemy were able to carry out aerial invasion on a really large scale. As he says, the war will probably end before the autumn. Germany can hardly stand another winter, but she will make a desperate effort to win in the air by an invasion of England this summer. If she invades London night after night, as she may do, we shall of course put up a gallant defence, but the only way to stop her is a counter-invasion of the Rhine towns. We all revere the heroic defence of Verdun two years ago by our French Allies, but what saved Verdun was

our counter-attack on the Somme ; and what will save London will be our counter-attack on Cologne. Can we accomplish this ?

We can, if all concerned will do their best to hurry on production, but if we are to be held up by strikes and labour troubles and all the crassness that was at the root of our troubles in 1917 we shall not. It is of no use to contemplate spasmodic raids by squadrons of fifteen or twenty machines. Mr. Joynson-Hicks is perfectly correct when he says that we must send them over at the rate of a hundred a day, until the Hun is either cured, or, preferably, killed. We have made a good start by the creation of the new Air Council, with a live head and an equally live personnel. Let us see that every influence that can be brought to the assistance of those we have made responsible for the conduct of the war in the air is used to its utmost capacity. If we do that all will be well. If not, then the best that can be said is that 1918 will not bring the peace we so ardently hope for and intend to get.

Br'er Fox at His Tricks.

There is no doubt that Germany is feeling the pinch of the Allied blockade, and in all probability she is feeling it pretty severely. Reports from the land of the Hun all agree that the German people are tired of the war ; that they are anxious for peace ; that they are dying in hundreds of sheer starvation ; and have reached the extreme limit of their endurance. The reports spread to the air service, since prisoners seem to agree that the wastage in machines has been very heavy ; that large numbers of pilots have been killed or permanently incapacitated ; and that a great deal of difficulty is being encountered in getting good machines and pilots.

There is probably some amount of truth in these stories. Indeed, it would be passing strange if Germany's tremendous efforts during the past three and a half years had not left their mark. We know from our own experience, comparatively untouched as we have been by the grim actualities of war, that there must be some amount of exhaustion in the enemy's country, but we must beware of attaching too much importance to the circumstantial stories of the friendly neutral or the officially approved utterances of the German Press. We should have learnt by experience that the Hun is never so much alive as when he is shamming dead. We should recall that three years ago the Germans admitted that their last available reserves of man-power had been drawn into the line of battle—and the invasion of Serbia and Montenegro followed. Then, late in 1916 the same story, accepted by our own civilian statisticians was told—and the Roumanian debacle came hard on its heels. Last year, again, Germany was once more at her last gasp, but not so nearly dead but that she was able to bring off the Riga coup and at the same time to give effective assistance to Austria in the campaign against Italy.

Germany knows that the Allies are preparing for a decisive effort this year, and that effort will include a powerful offensive in the air. That being so, it is patent that she hopes once more to produce a slackening of Allied effort in the aerial programme by once more adopting the tactics of Br'er Fox. She is shamming dead. If we have learnt the lesson we should have learnt, these tactics will fail. But the most serious thing about it is that they have deluded us before and may again if we are so foolish as to listen to the stories

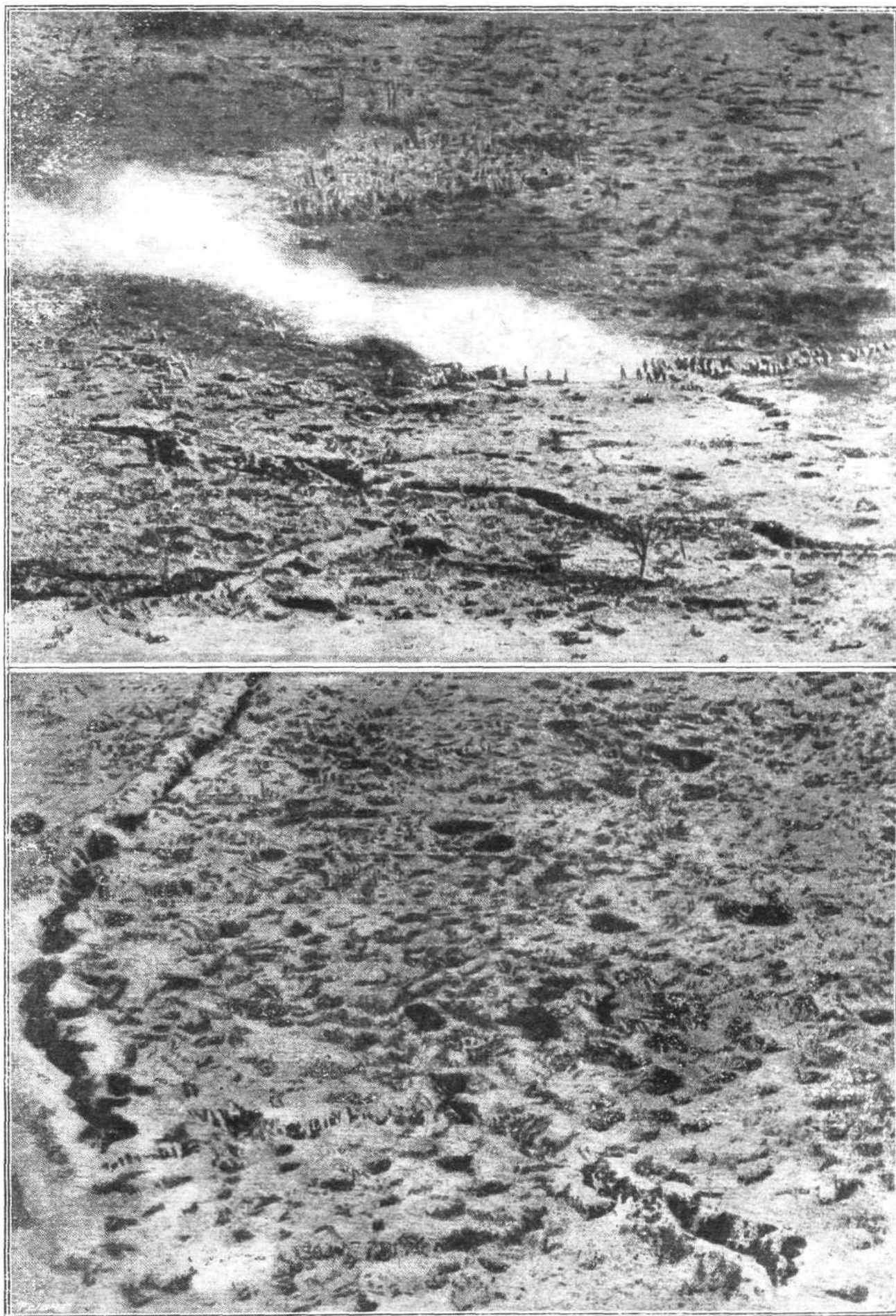
to which allusion has been made. The only safe course to take is to regard Germany as being at the zenith of her strength and to make our preparations accordingly. We must strain every nerve, every resource, to establish absolute supremacy in the air, not turning aside for a moment to listen to tales of a decaying German air service. It is *not* decaying. On the contrary, Germany is working at the highest possible pressure to outstrip us in the race for the command of the air, and unless we make that fact the basis of our calculations we shall have a rude awakening in the Spring.

Industry After the War.

The distrust which has been created among the business community by the Imports and Exports (Temporary Control) Bill was focussed into a deputation from the Associated Chambers of Commerce which waited, the other day, on the President of the Board of Trade. Sir Algernon Firth, President of the Association, stated the objections to the Bill, which he said were based on the fear that the control of industry after the war by the Government Departments which are now interfering with it might continue too long, and the apprehension that a man might not be able to conduct his business on his former lines of doing as he liked and selling where he pleased. The Chambers of Commerce wanted safeguarding against undue interference in their industries.

Sir Albert Stanley, in replying, said that the Government now practically controlled the entire trade of the country, and when the war came to an end it would not be possible immediately to bring the machine to a stop. The Board had given the matter its fullest consideration, and had concluded that as the machine had been gradually wound up, so it must be gradually unwound. (By the way, he did not say whether the Archbishop of Canterbury or the Speaker of the Irish House of Commons had assisted in the conferences.) The return to a condition which would admit, if not of a complete relaxation of control, certainly of a very considerable relaxation of it, would not take such a long time as some people imagined. After careful consideration the Board had inserted a period of three years in the Bill, without contemplating for a single moment that anything approaching the restrictions in the aggregate as they would exist at the time the war came to an end would be continued. They had no desire to establish a period that was too long ; on the other hand, it would be fatal if it were too short.

It does not emerge from the reports of the meeting that the deputation went away altogether satisfied with the assurances it received. That is scarcely surprising when we regard the proposals of the Bill for a continuance of the Government control of industry and commerce, with the context of all we see going on around us every day. There is no doubt at all that a very large section of what we may call "control" is casting longing eyes on a continuance of its jobs after the war and will fight tooth and nail to preserve them. We agree that, as Sir Albert Stanley pointed out, it will be impossible to wipe out all Government control instantaneously on the conclusion of peace, but we certainly view with distrust and anxiety the attempt which is being made to corner everything for three whole years. Why this period any more than another? Sir Stanley himself admitted that if the political situation changed, there would be no



THE COLLABORATION OF AEROPLANES AND INFANTRY.—Two remarkable photographs taken from a height of 500 metres. The smoke in one of the photographs has the object of indicating to the aviators the progress of the infantry. The wireless will quickly inform the command of the points attained by the attacking troops. In the other photograph the poilus are seen jumping from shell crater to shell crater while advancing to attack the German positions.

(La Guerre Aérienne.)

difficulty in passing any measure which they (presumably the Government) desired. If that is so, and especially in view of the objections of the industrial and commercial communities, why not have made the Bill operative for one year only? If, in the words of the President, "the political situation should change" its provisions could be extended for another year, and for still another year beyond that if necessary. While the country is willing to give the Government a blank cheque for the actual conduct of the war, the principle of allowing these unlimited over-drafts on our personal and collective liberties after the war is one which we cannot view with anything but the profoundest disquiet. We sincerely trust that Parliament will regard this and similar measures submitted to it for the extension of control after the cessation of hostilities with a jealous mind, and will refuse to pass them without the most careful investigation, and only after being satisfied of their urgent necessity. These are not matters to be settled by the obedient hacks of the Whips, but must be approached from a standpoint of serious business foresight, else our case after the war will be worse than before.

The British Museum.

The reported intention of the Office of Works to take over the British Museum for the use of the Air Council has, as might have been expected, been greeted with a storm of protest from all classes of the community. It is stated that the project has been approved by the War Cabinet, and that this body has not been able to see its way to rescind the decision to house the Air Council among the priceless antiquities belonging to the nation which are housed under the roof of the vast building in Bloomsbury. We do not intend to traverse all the arguments that have been adduced against putting the Museum to this use. As a matter of fact, nothing has been said or written on the subject but what we all feel, and the question simply comes to this: that so long as there is a single alternative choice left such action as is contemplated—if not already effected—would be a crime against the nation and an outrage on every scholarly feeling we hold. And it is difficult to believe that there is no alternative. There are still huge hotels remaining unappropriated to Government uses, and while we are fully aware that the question of accommodation for London's great floating population is becoming acute, we had far rather see the inconvenience three times accentuated than that such an act of vandalism as that under discussion should be committed. It is not as though the Museum is readily adaptable to the purposes of Government administrative work. So far from that being the case, it will cost a very large sum of money to render it habitable and useful for its contemplated purpose, while in the case of a great hotel, such, for example, as the new Regent Palace, with its vast number of rooms, very little expenditure would be needed to adapt it.

It does not seem to us that the War Cabinet, or the Office of Works, or whoever is primarily responsible in the matter, can have given the matter of alternatives the serious consideration it deserves. It looks as though the question of new quarters for the Air Council had been raised as a matter of urgency, and someone had said: "Let 'em go to the British Museum," and the Cabinet had answered: "Good idea. That's another matter settled," and gone home to dinner. It all bears the impress of too hurried decision and obstinate refusal to withdraw from an

unpopular position. Leaving aside all other considerations, has the War Cabinet thought of what is likely to be the verdict of the country on its action in the event of the destruction of or serious damage to the national collections during the air raids that are bound to come in the Spring and Summer of this year? As our own pages will indicate, we have not much love for the Hun or his ways, but we are not really inclined to believe that the Germans come over here with the set intention of destroying such edifices as the Museum. At any rate in the one or two daylight raids that have reached London there has been nothing specially to indicate that the enemy machines were preferably out to damage any but buildings in which work essential to the war is carried on. In the night raids they, of course, attack London indiscriminately, and care nothing whether bombs drop on the British Museum or any other building, hoping at the same time that they will do essential damage to our war activities. Now, supposing in the course of these indiscriminate raids they *do* destroy the Museum, provided the latter has been retained in its proper uses, the whole obloquy of the affair will rest on the Hun. No one could by any possibility hold our own authorities directly responsible for the occurrence. But the case is altered entirely if the Museum is devoted to war purposes. It then becomes a perfectly legitimate object of attack, and in case of its destruction or serious damage the responsibility would certainly lie at the door of the Cabinet, who would be called to a strict account. Even at the eleventh hour we trust the decision will be rescinded and an alternative found—as we are certain it can be.

A Matter of Parachutes.

It is not our usual practice to refer our readers to advertisements appearing in the pages of FLIGHT, nor should we do so now were there not in our judgment good reasons for so doing. The matter we have in mind now is an advertisement—one of a regular series upon the same lines—of the E. R. Calthrop's Aerial Patents, Ltd., which seems so remarkably unlike the ordinary methods of announcement that we do not hesitate to draw attention to it. For this reason: here is a firm which has something good to sell—we know of our own knowledge that the parachute in which this firm specialises is a good thing—and it says so. But it does not stop at simply saying that its parachute is a good parachute. It goes on to say why it is good, and why it is better than the ordinary, and says it with chapter and verse for the governing facts. In a word, it is an informative and an educative announcement, after reading which the potential user of the parachute is able to know for himself why he wants this in preference to another and why he, apparently, knows all about the salient characteristics of this and the other type. It is, to our way of thinking, a model of what the truly educative advertisement should be—it is different to the ordinary run of such things and deserves commendation on that account. Incidentally and by the way, we hear excellent accounts of the way this parachute behaves on service. Further, we are given to understand that the firm is interested in certain other aerial inventions which appear to have a very useful future in the war—if the powers that be will but listen to their explanation. As a matter of fact, we are inclined to think that there is still a disposition to turn down things that are new and imperfectly understood by some of the "experts" who handle the preliminaries.

THE AIR COUNCIL.

By Order in Council of January 2nd the Air Council has been established as from January 3rd.

The Council is constituted as follows:—

Lord Rothermere	Secretary of State and President of the Council.
Major-General Sir H. Trenchard, K.C.B., D.S.O.	Chief of the Air Staff.
Rear-Admiral Mark Kerr, C.B., R.N.	Deputy Chief of the Air Staff.
Commodore Godfrey Paine, C.B., M.V.O., R.N.	Master-General of Personnel.
Major-General W. S. Brancker.	Comptroller-General of Equipment.
Sir William Weir	Director-General of Aircraft Production in the Ministry of Munitions.
Sir John Hunter, K.B.E. . .	Administrator of Works and Buildings.
Major J. L. Baird, C.M.G., D.S.O., M.P.	Parliamentary Under-Secretary of State.
Lieutenant-General Sir David Henderson, K.C.B., D.S.O.	Additional member of Council and Vice-President.

Mr. W. A. Robinson, C.B., has been appointed to act temporarily as Secretary to the Council, and Mr. H. W. McAnally to act as Assistant Secretary.

Sir John Hunter, K.B.E., will continue to perform his present duties in the Ministry of Munitions, in addition to acting as Administrator of Works and Buildings in the Air Ministry.

By an Order in Council made on January 2nd, it is provided that the President of the Air Council may appoint one of the two additional members to be Vice-President; and that in paragraph 2 of the Order in Council of December 21st, 1917, for the words "the Controller-General of Equipment and the Inspector-General of the Air Force" there shall be substituted the words "and the Controller-General of Equipment."

The Personnel of the Air Council.

THE composition of the Air Council now that it has been disclosed is pretty much as we expected it to be. All the well-known names identified with military and naval aeronautics in the past—with one or two exceptions—figure in the list, and although that fact might in some quarters be taken to indicate a dearth of new talent for high administrative work, it is nevertheless the case that no criticism can be directed against any single one of the appointments: Lord Rothermere has seen fit to make. An outline sketch of the career of the members composing the Council will, perhaps, not be without interest.

Rear-Admiral Mark Kerr.

THE appointment of Rear-Admiral Mark Kerr as Deputy Chief of the Staff is a happy thought. Although he has not been prominently identified with aeronautics in this country, he has a high reputation as an administrator and strategist. It was he who was entrusted with the mission of reorganising the Greek Navy, with its collateral of the creation of a Greek Air Service. He is a certificated pilot, having taken his brevet in Greece on a Sopwith machine in July, 1914. He served with the Naval Brigade in Egypt in 1882 and again in the Soudan campaign of 1891.

Commodore Godfrey Paine.

COMMODORE PAINE takes up the appointment of Master-General of Personnel. He became known in the earlier days



Sir Douglas Haig's Thanks.

IN his despatch dealing with the operations in France from April to November of last year Sir Douglas Haig says:—

"In the discharge of duties, constantly increasing in number and importance, the Royal Flying Corps throughout the whole of the past year has shown the same magnificent offensive spirit which characterized its work during the Somme Battle, combined with unsurpassed technical knowledge and practical skill.

"The enemy, however, shows no signs of relaxing his endeavours in this department of war. While acknowledging, therefore, most fully the great effort that has been made to meet the ever-increasing demands of this most important Service, I feel it my duty to point out once more that the position which has been won by the skill, courage, and devotion of our pilots can only be maintained by a liberal supply of the most efficient machines."

The Work of the French Aviators.

FOR the first time the French in their *communiqué*

of service flying for his able administration of the Central Flying School at Upavon. Later, after one of the periodic reorganisations of the R.N.A.S., he became Director of the Naval Air Service and Fifth Sea Lord, with a seat on the Board of Admiralty and on the Air Board.

General Sir David Henderson.

NO ONE conversant with General Sir David Henderson's work for military aeronautics imagined for a moment that, when he handed over command of the R.F.C. to General Salmond he would remain unemployed in the direction in which his peculiar talents can be best utilised. Therefore, there can be no surprise felt that he goes to the Air Council as a member and Vice-President. We are sure we need not refer to the details of his aeronautical career—they must be sufficiently familiar to all our readers.

Major-General Trenchard.

A MAJOR-GENERAL SIR H. M. TRENCHARD requires no introduction to the readers of "FLIGHT," for he has been prominently identified with aeronautics for years past. He is eminently one who gets things done, and his appointment as Chief of the Air Staff could hardly be bettered. In the present war he commanded the R.F.C. in the field in 1914, when it consisted of four more or less effective squadrons, and has seen it grow to a strength out of all proportion to anything his wildest dreams of pre-war aerial expansion could have visualised. No one has done more for military aeronautics than General Trenchard.

Major-General Brancker.

AFTER a very brief period of command in France, General Brancker returns to administrative work as Controller-General of Equipment. He is the youngest member of the Council, being still on the right side of forty.

Sir John Hunter.

A NEW personality in aeronautics is Sir John Hunter, who becomes Administrator of Works and Buildings. He has gained valuable experience as Director of Factory Construction and Director of Iron and Steel Production at the Ministry of Munitions.

Sir William Weir.

SIR WILLIAM WEIR virtually carries on the work on which he has been engaged for some months past, his new appointment being that of Director-General of Aircraft Production.

Sir Henry Fowler.

SIR HENRY FOWLER—to whom congratulations on his recent well-deserved knighthood—becomes Assistant-Director-General of Aircraft Production under the Ministry of Munitions. Before he was appointed Superintendent of the R.A.F. Sir Henry, who was chief mechanical engineer of the Midland Railway, a post he had held since 1909, had already made his mark in war work in another direction at the Ministry of Munitions.

Lieutenant-Colonel Alexander.

ANOTHER appointment made by the Ministry of Munitions is that of Lieut.-Colonel W. Alexander, D.S.O., to be Controller of the Supply Department in the Aircraft Production branch of the Ministry. Colonel Alexander is an old Volunteer officer and managing director of the firm of Chas. Tennant and Co., of Glasgow. He gained his D.S.O. in the present war while serving with the 6th Perthshire Battalion of the Black Watch.



of Jan. 8th included a monthly summary of air work as follows:—

"During the month of December, 1917, the activity of our chasing aeroplanes was particularly successful. Our pilots, in spite of the intense cold and unfavourable atmospheric conditions, did not cease to seek combat over the German lines, and maintained their superiority in a brilliant manner.

"Seventy-six German aeroplanes were destroyed or put out of action. Of this number 28 machines were brought down in the French lines, 18 were seen to crash to the ground in German territory, and, in addition, 35 other German aeroplanes appear to have been destroyed, but this has not been confirmed, as the inquiry could not be entirely conclusive.

"Our losses in the month of December are as follows:—Seven French aeroplanes shot down or lost in the German lines, three shot down in the French lines, nine damaged by the enemy had to land in our lines; lastly, one of our captive balloons was burnt, making a total of 20 French machines, against 76 German aeroplanes."

NEW YEAR HONOURS.

It was announced in a supplement to the *London Gazette* of January 1st that the King has been pleased to approve of the following rewards for distinguished service in the field:—

Distinguished Service Order.

2nd Lieut. (Temp. Major) R. G. Blomfield, Gds. and R.F.C.; Major (Temp. Lieut.-Col.) A. G. Board, S.W. Bor., and R.F.C.; Major and Bt. Lieut.-Col. (Temp. Brig.-Gen.) L. B. Boyd-Moss, C.M.G., S. Staffs.; Capt. (Temp. Lieut.-Col.) H. Burchall, R.F.C. (S.R.).

Capt. (Temp. Lieut.-Col.) A. D. Carden, R.E. and R.F.C.; Capt. (Temp. Lieut.-Col.) A. Christie, R.A. and R.F.C.; Capt. (Temp. Lieut.-Col.) R. H. Collier, R.F.C. (S.R.); Capt. E. R. L. Corballis, R. Dub. F. and R.F.C.

Major A. S. W. Dore, Worc. and R.F.C.

Capt. (Temp. Major) G. P. Grenfell, R.F.C. (S.R.); Wing Comdr. F. C. Halahan, M.V.O., R.N.A.S.; Major L. Jenkins, M.C., Dorset, R.G.A., and R.F.C.; Capt. (Temp. Major) J. L. Kinnear, M.C., L'pool and R.F.C.

Capt. and Bt. Lieut.-Col. (Temp. Brig.-Gen.) C. A. H. Longcroft, Welsh; Lieut.-Comdr. E. N. Groves Morris, R.N.V.R., attd. R.N.A.S.; Lieut. O. G. G. Villiers, R.N.V.R., attd. R.N.A.S.; T./Maj. C. S. Wynne Eyton, Gen. List and R.F.C.

Lieut. (Act. Maj.) A. C. Maund, Can. Inf. and R.F.C.; Lieut. (Temp. Major) F. F. Minchin, M.C., Can. Inf., attd. R.F.C.

Bar to the Military Cross.

Capt. G. W. Hodgkinson, M.C., Yeo. and R.F.C.; Capt. W. S. Scott, M.C., Lancs. F., attd. R.F.C.

The Military Cross.

Lieut. (Temp. Major) J. R. Bedwell, R.G.A. and R.F.C.; Temp. 2nd Lieut. J. Bennett, R.F.C.; Temp. 2nd Lieut. R. de Renzie Brett, Gen. List and R.F.C.; Temp. Lieut. A. F. Britton, Gen. List and R.F.C.; Capt. E. W. Broadberry, Essex and R.F.C.; Lieut. J. Brown, R.F.C.

Temp. Capt. C. M. Clement, Gen. List and R.F.C.; 2nd Lieut. (Temp. Capt.) J. A. Cochrane, R. Scot. F., attd. R.F.C.; Lieut. (Act. Capt.) S. Collier, Ches. and R.F.C.; Temp. Capt. J. F. Davison, Gen. List and R.F.C.; Temp. Capt. J. A. D. Dempsey, R.F.C.

2nd Lieut. (Temp. Capt.) O. H. Frost, Midd'x and R.F.C.; Lieut. (Temp. Capt.) G. D. Gardner, Yorks. and R.F.C.; 2nd Lieut. (Temp. Lieut.) J. McG. Glen, R. Scots, attd. R.F.C.

Capt. (Temp. Major in Army) K. K. Horn, R.F.C. (S.R.); Temp. 2nd Lieut. (Temp. Capt.) W. S. Huxley, Gen. List and R.F.C.; 2nd Lieut. (Temp. Lieut.) J. W. D. Leigh, Cycl. Bat. and R.F.C.; Lieut. (Temp. Capt.) W. R. B. McBain, R.F.A. and R.F.C.; Lieut. (Temp. Capt.) J. Y. McLean, R.F.A. and R.F.C.; Lieut. (Temp. Capt.) C. S. Morice, Worc. and R.F.C.; Temp. 2nd Lieut. (Temp. Lieut.) G. S. Murray, Gen. List and R.F.C.

Temp. Capt. A. R. Penny, Gen. List and R.F.C.; Capt. O. T. Preston, Notts and Derby and R.F.C.

Capt. H. M. M. Robertson, R.A., attd. R.F.C.; Capt. (Temp. Lieut.-Col.) T. F. Rutledge, R.F.C. (S.R.); Temp. 2nd Lieut. H. J. Scales, Gen. List and R.F.C.; Lieut. (Temp. Capt.) W. E. L. Seward, R.F.C. (S.R.); Temp. Lieut. (Temp. Capt.) S. B. Smith, R.F.C.

2nd Lieut. (Temp. Major) L. A. Tilney, R.H. Gds. and R.F.C.; Capt. C. W. C. Wasey, R. Warw. and R.F.C.; 2nd Lieut. P. H. R. Whittet, R.F.C. (S.R.); Lieut. (Temp. Capt.) C. W. Wise, A.S.C. (S.R.) and R.F.C.; Temp. Lieut. R. M. Wynne-Eyton, Gen. List and R.F.C.; Capt. A. W. L. Ellis, Aus. F.C.; 2nd Lieut. J. V. Tunbridge, Aus. F.C.; Lieut. W. K. Anderson, Can. Inf. and R.F.C.

Distinguished Conduct Medal.

11559 Corpl. C. J. French, R.F.C.; 49181 Sergt. A. R. Hervey-Bathurst, R.F.C.

Meritorious Service Medal.

(In recognition of valuable services rendered with the armies in the field during the present war.)

11798 Sergt. G. A. Booker, R.F.C.; 2768 Corpl. G. W. Carter, R.F.C.; 13752 Flight Sergt. G. E. Chrigwin, R.F.C.; 3472 Sergt. (Act. Sergt.-Major) A. J. Cook, R.F.C.; 632 Sergt. (Act. Sergt.-Major) T. Cummins, R.F.C.; 1463 Sergt. (Act. Sergt.-Major) J. A. Cundy, R.F.C.

16530 Flight Sergt. F. W. Dodd, R.F.C.; 4089 Sergt. (Act. Sergt.-Major) R. M. Duke, R.F.C.; 5182 Flight Sergt. W. Harvey, R.F.C.; 1647 Flight Sergt. W. H. Hellon, R.F.C.; 6281 Corpl. T. J. Keane, R.F.C.; 19497 Corpl. (A./Sergt.) E. W. King, R.F.C.; 11000 Sergt. E. Laughton, R.F.C.; 18014 Sergt. W. S. Leigh, R.F.C.; 4682 F./Sergt. C. Lyne, R.F.C.; 13795 Flight Sergt. C. W. Murton, R.F.C.; 3862 Flight Sergt. C. R. Orchard, R.F.C.; 22548 Flight Sergt. F. Ramsay, R.F.C.; 253 Act. Sergt.-Major W. J. Smyrk, R.F.C.; 1330 Flight Sergt. W. H. Sweeting, R.F.C.

1561 Sergt. (Temp. Sergt.-Major) J. Wainwright, R.F.C.; 347 Sergt. (Temp. Sergt.-Major) A. Webb, R.F.C.; 13802

Flight Sergt. T. O. Webber, R.F.C.; 5084 1st Air-Mech. J. G. Weldon, R.F.C.; 5947 Flight Sergt. E. E. White, R.F.C.; 4996 Sergt. (Temp. Sergt.-Major) W. G. Willis, R.F.C.

In the list of new appointments and promotions in the Order of the British Empire announced on January 7th, the following appeared:—

Knights Commanders.

Frank Baillie, Esq., Director of National Aeroplane Factory, Toronto.

Lieut.-Colonel Henry Fowler, C.B.E., Chief Mechanical Engineer to the Midland Railway; Superintendent of the Royal Aircraft Factory, Farnborough (now Assistant Director-General of Aircraft Production).

Jas. McKechnie, Esq., Man. Dir. of Messrs. Vickers, Ltd., Barrow.

Commanders.

Major T. G. Hetherington, services in connection with the origination of Tanks; Lieut.-Comdr. B. O. Jenkins, R.N.V.R., Member in Charge of Aviation, British War Museum, U.S.A.; Wing Captain E. A. D. Masterman, R.N.A.S.; A. J. Kelton, Esq., member of the Aircraft Insurance Committee; J. D. Siddeley, Esq., Managing Director of the Siddeley-Deasy Co., Ltd.; T. O. M. Sopwith, Esq., Chairman and Test and Experimental Manager of Sopwith Aviation Co., Ltd.

Officers.

Lieut.-Colonel R. Bell-Irving, Instructor, R.F.C.; A. E. Berriman, Chief Engineer, Daimler Co., Ltd.; Flight-Comdr. (Actg. Wing Comdr.) F. A. Brock, R.N.A.S.; Squadron-Comdr. H. R. Busteed, R.N.A.S.; Squadron-Comdr. R. A. Chalmers, R.N.A.S.; Major H. E. Chaney, Headquarters Training Div., R.F.C.; G. B. Cockburn, Esq., Inspector of Aeroplanes, A.I.D.; Major F. S. Creswell, Park Commander, R.F.C.; Major H. S. Ebben, Deputy Assist. Adjutant-General, R.F.C.; B. P. Everett, Esq., Head of Drawing Office, Air Board, Technical Department; Lieut. D. McNeill Greig, Supply Officer, Aeroplane Supply Branch, Air Board; Major H. Grinstead, Chief Engineer, Royal Aircraft Factory; Major C. Jarrott, Inspector of Mechanical Transport, R.F.C.; C. N. Knight, Esq., Section Director, Contracts Board, Air Board; G. A. Morrow, Esq., Director of Aviation, Imperial Munitions Board, Canada; Wing Comdr. A. Ogilvie, R.N.A.S., Head of Aeroplane Design Section, Air Board Technical Department; W. G. Perrin, Esq., Secretary to the Fifth Sea Lord, Admiralty; Squadron-Comdr. C. F. Pollock, R.N.A.S.; A. V. Roe, Esq.; Captain T. M. Rogers, Production Officer, Aeroplane Supply Branch, Coventry District; F. H. Royce, Esq., Director and Chief Engineer Rolls-Royce, Ltd.; F. R. Stapley, Esq., Section Director, Contracts Branch, Air Board; Lieut.-Comdr. H. E. Wimperis, R.N.V.R.

Members.

Captain W. E. Aylwin, R.F.C.; Lieut.-Comdr. T. B. Barrington, R.N.V.R., Design Section, Air Board Technical Department; Captain P. Bishop, Assistant Engineer engaged on Design of Aeroplanes, R.A.F.; Lieutenant H. C. S. Bullock, R.F.C.; A. W. Burgess, Esq., in charge of Aeronautical Supply Department Registry, Air Board; Major C. D. M. Campbell, R.F.C.; Miss M. Chalmers, Administrative Assistant, Materials and Accessories Branch, Air Board; B. G. Cooper, Esq., Head of Sub-Section of Air Board Technical Department; Captain W. S. Farren, in charge of aerodynamics at R.A.F.; Miss H. Goodyear, Admin. Assist., Contracts Branch, Air Board; Prof. P. Groom, D.Sc., Head of Section Technical Department, Air Board; Lieut.-Comdr. C. F. Jenkin, R.N.V.R., Air Board Technical Department; Mrs. A. M. K. Smith, Welfare Superintendent, Aston Construction Co., Ltd.; Flight-Lieut. L. J. Killmayer, R.N., Production Officer, Seaplanes Branch, Air Board; A. T. Larter, Esq., Aeronautics Contracts, Contracts Department, Ministry of Munitions; Captain T. Lyons, Deputy Assistant Director of Aircraft Equipment, Air Board; W. A. Medrow, Esq., Air Department, Admiralty; Captain J. S. Nicholson, Technical Adviser, Materials and Accessories Branch, Air Board; Major S. E. Parker, Instructor, R.F.C.; Miss W. Pead, Admin. Assist. Contracts Branch, Air Board; A. J. S. Pippard, Esq., Head of Sub-Section, Technical Department, Air Board; C. R. Pledger, Esq., Aeronautics Finance, Finance Department, Ministry of Munitions; Captain D. M. P. Riach, Production Officer, Engines Branch, Air Board; Major W. J. Ryan, R.F.C.; G. G. Sinclair, Esq., Actg. Civil Engineer in charge of Works, R.N.A.S., Central Depot, Cranwell; Major G. B. Turner, Engineer in Charge of Production, R.A.F.; H. C. Watts, Esq., Head of Sub-Section Technical Department, Air Board; Miss C. E. W. Smith, personal assistant to Director of Supply and Production, Air Board.

THE 260 H.P. MERCEDES AERO ENGINE.

(Continued from page 13.)

THE pistons are constructed in two parts, the head which carries the gudgeon pin in projecting lugs, and the skirt of the piston, into which the head is screwed.

The head of the piston is a steel forging machined all over, the thickness of the crown being 8.5 mm. The skirt of the piston is screwed on to the head and

Valves and valve gear.—As previously mentioned, the twin inlet and exhaust valves are interchangeable. The maximum diameter of the head of all valves is 60 mm.; the lift of both the inlet and exhaust valves is 10 mm., and the clearance between the end of valve stem and adjustment screw of the rocker arm is .018 in. The general arrangement

of the valves and rocker arms is clearly shown in the cross-sectional scale drawing (Fig. 8). In this drawing the section is taken through the centre of the cylinder as far as the top of the cylinder barrel, and above this point the section is shown through one inlet and one exhaust valve, and valve gear. The valves are operated by a single overhead camshaft, working in a detachable casing of special alloy machined all over, which is supported on twin T brackets which are screwed into the head of each cylinder. The camshaft runs on seven phosphor-bronze plain bearings, which are mounted in aluminium bushes fitted into the bore of the camshaft casing, each bush being located by a tapered grub-screw. The method of operating the twin valves off one cam and the general design of the camshaft and camshaft casing is of interesting design. The details of this are shown in the sectional drawings (Fig. 10). The spindle of each rocker lever is mounted on three bearings in the camshaft casing, and so designed that the cam operates the arm of the rocker lever inside the camshaft casing, whilst the other arm of the rocker operates the valve outside the casing. The arm works between two outer bearings of the rocker spindle and is situated between the separated compartments of the camshaft casing. On the end of the outer rocker arm a double branch tappet arm is fixed which operates the twin valves (Fig. 11). Although these branch arms do not swivel upon the valve rocker, they are not secured by a set screw or pin, being merely pressed on to the ends of the rocker arm and easily driven off.

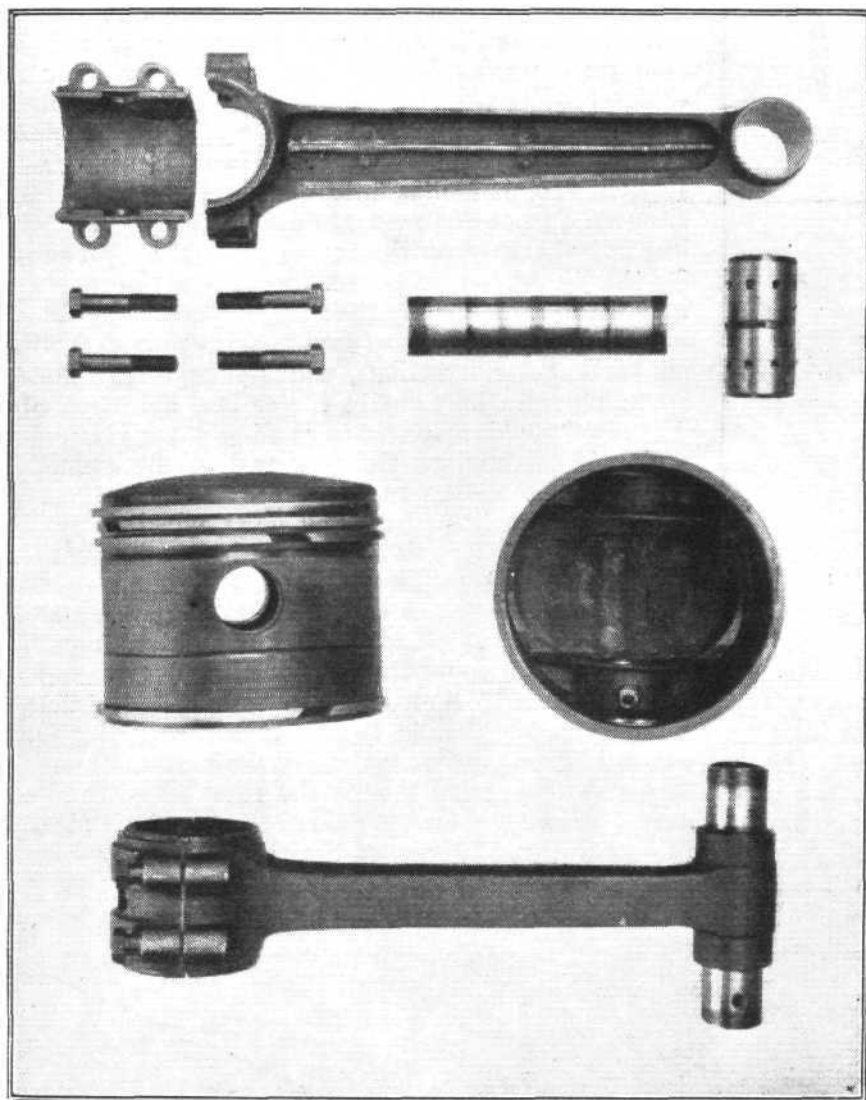


Fig. 8.—Connecting rod, piston, gudgeon pin and bush.

acetylene welded at the joint; the head of the piston is slightly domed, as shown in the sectional drawings (Fig. 9).

The skirt of the piston is of cast iron. Three compression rings are fitted in grooves cut in the cast-iron skirt above the gudgeon pin, and a scraper ring at the base of the piston, the width of the ring being 5 mm.

All the rings are split at a diagonal gap of 45 degrees and no locating pegs are fitted to maintain the positions of the rings. The gudgeon pin, which is 37 mm. in diameter, projects through the lugs on the piston head, and fits into the piston skirt, flush with the outside diameter. The gudgeon pin is fixed by an 8 mm. set screw, screwed into the end of the gudgeon pin through the boss and locked with a split pin on the inside.

The weight of the complete piston with gudgeon pin and bush is 10.93 lbs.

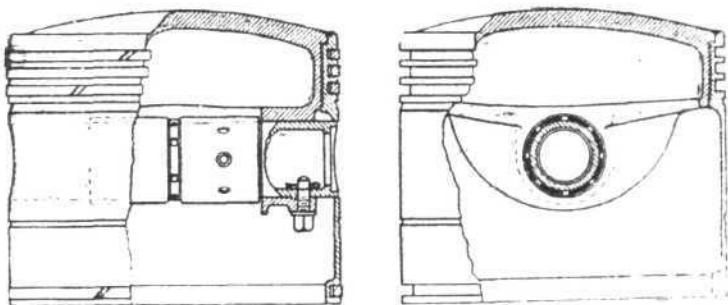


Fig. 9.—Arrangement of piston, gudgeon pin, and bush.

The spindles of the valve rockers are carried directly in the camshaft casing, no gunmetal bearing liners being fitted. The inner arms of the rocker levers,

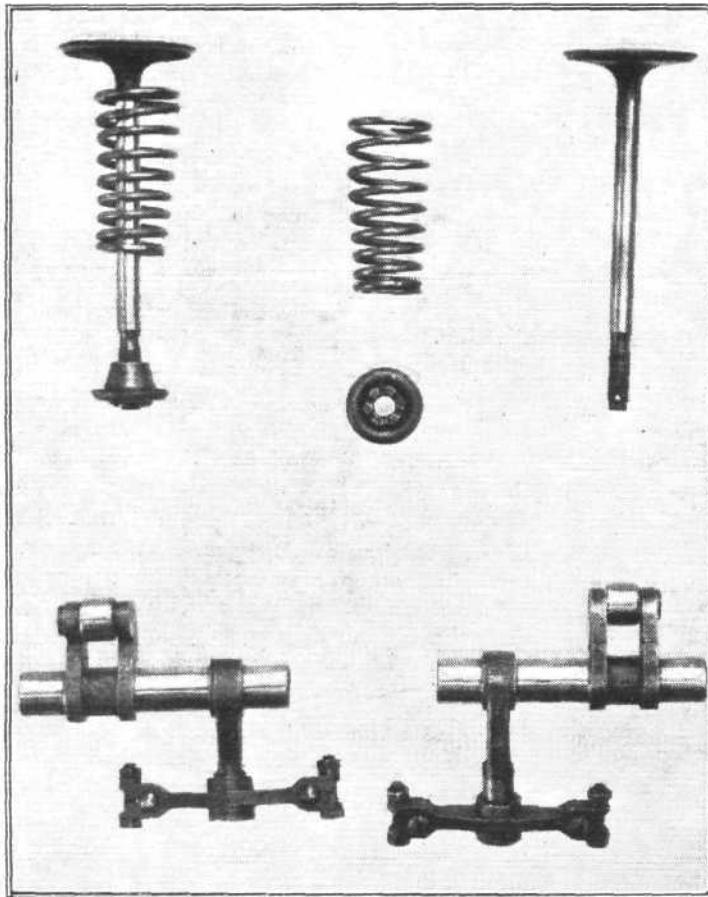


Fig. 10.—Valves and valve rocker arms.

which are worked by the cams, are fitted with hardened steel rollers. The diameter of the valve stem is 11 mm. and each valve works in a phosphor-bronze bush in the valve stem guide, as already mentioned. Each valve works at an angle of 15 degrees to the perpendicular axis of the cylinder centre line. Single helical valve springs are fitted and measured 39 mm. at the base of the coil, tapering to 31 mm. at the top. Conical based adjusting nuts are provided inside the valve spring washers for adjusting the valve springs. Details of these are shown in the sectional drawings.

Camshaft Drive and Half Compression Gear.—The camshaft is driven through a vertical shaft by the main distribution bevel gear mounted on the end of the crankshaft by four splines. The method of attaching the small driving bevel gear to the top end of the vertical driving shaft is interesting. The bevel gear pinion is detachable from the shaft, and is designed so that it may be adjusted for the correct mesh in the teeth of

the camshaft-driven bevel wheel. Full details of this gear are shown in Fig. 10 and also in the sketch Fig. 12, which shows the parts of the gear pinion dissembled. The driving end of the shaft is machined and ground parallel to 23 mm. diameter, and is fitted with a key, on to which is driven a ground taper on the bottom extension of the bevel pinion, which is split by four saw-cuts. A collar, screwing on to the lower extension of the bevel pinion, locks it securely on the vertical driving shaft.

Half Compression Gear.—In order to allow these large engines to be more easily turned over, a half-compression gear is provided. This is similar in design to that fitted on the 160 h.p. Mercedes engines. In this type of compression release gear the camshaft is designed to slide longitudinally in its bearings, and in doing so, it brings into operation a small cam situated on the mid neutral axis of the exhaust cam, but not of course on the actual cam face. To allow for the sliding movement of the camshaft in its bearings without disturbing the mesh of the driving bevel gears, the large driven bevel gear is provided with six rectangular serrations, which engage with corresponding serrations cut in the end of the camshaft. The bevel gear is mounted in a split gun-metal bearing which is driven into the rear end of the camshaft casing. The sliding movement of the camshaft is effected by means of a hand lever, which is set at right angles to the axis of the camshaft, and attached to a gun-metal collar, having a five start square-thread screw of 23 mm. pitch cut on its inner diameter. This collar, which is located in an aluminium housing, operates a corresponding screw thread cut on the outer diameter of a steel sleeve, and inside the sleeve is contained a double thrust ball race and collar, which is fixed to the rear end of the camshaft. (See Fig. 10.) In action the partial rotation of the half compression lever on the axis of the camshaft rotates the quick-thread screw of the sleeve, which pulls or pushes the end of the camshaft in its bearings through

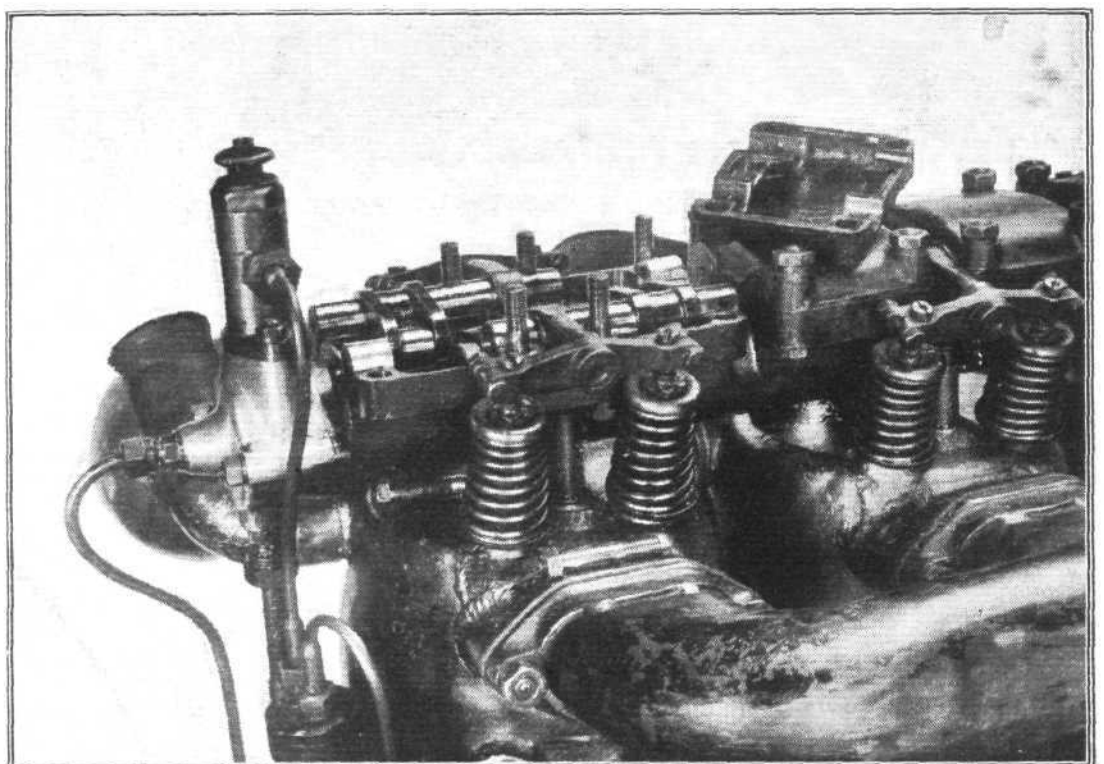


Fig. 11.—Front end of camshaft and valve rockers.

the serrated bore of the driven bevel gear. When the camshaft is drawn to its limit of movement towards the rear, the half compression cam is drawn into line with the roller end of the exhaust valve rocker arm, thus giving a slight lift to the exhaust valve as

compression stroke, and to close it 44 degrees before top dead centre. The hardened steel rollers on the cam rocker arms are bevelled off at 45 degrees on one side to allow of easy engagement of the half com-

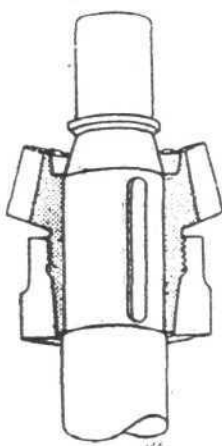
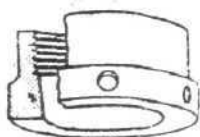


Fig. 12.—Details of camshaft driving pinion on top end of vertical driving shaft.

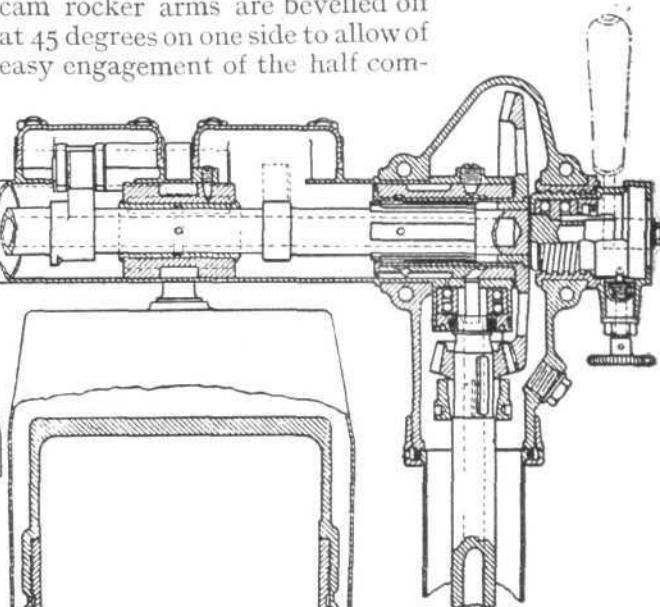
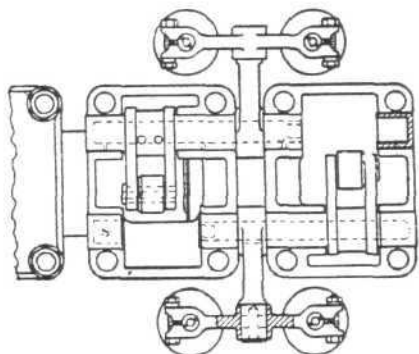
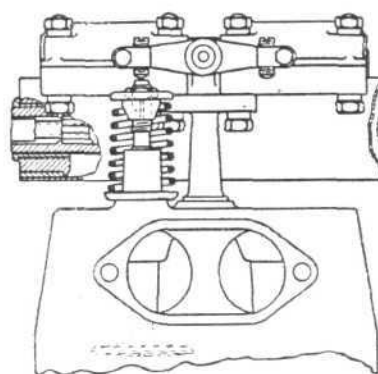


Fig. 13.—Arrangement of camshaft and half-compression gear.

the camshaft rotates. The half compression cam is so positioned on the camshaft as to open the exhaust valve 12 degrees after bottom dead centre on the

compression cam, which is also bevelled at 45 degrees. The details of this gear are clearly shown in the scale longitudinal sectional drawing of the rear end of the camshaft driving gear (Fig. 10).

Connecting Rods.—The connecting rods are of normal design, and are of H section forgings machined from steel forgings, and measure 326 mm. between centres. The total weight of the complete connecting rod, including the small end bush, is 7 lb. The weight of the big end complete is 4 lb. 14 oz., and the weight of the small end 2 lb. 2 oz. The thickness of the centre web of the H section is 2.5 mm., and that of the two outer webs is 3.5 mm. The diameter of the big end bearings is 64 mm., and the length 80 mm. These are split in the usual manner and held by four 12-mm. bolts.

The distinctive feature of the connecting rods is the floating gudgeon pin bush, the design of which is similar to that used on the 160 h.p. Mercedes. The bush is of hardened steel ground 2.5 mm. in thickness, the outside diameter being 42 mm., and the inner diameter 37 mm. The bush is a perfect working fit in the small end, and also on the gudgeon pin; and is lubricated by 14.5 mm. holes drilled radially in the bush, oil being supplied by a 6-mm. pipe leading upwards from the big end bearing. The pipe, which is of soft mild steel, is attached to the central web of the connecting rod by two riveted clips. Details of the connecting rods and floating gudgeon pin bush are given in Fig. 13.

(To be continued.)

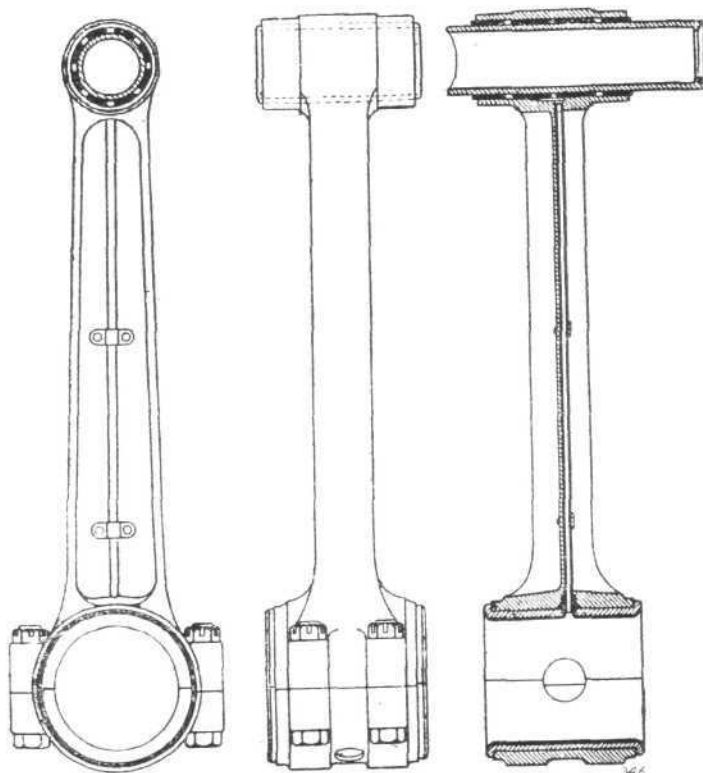


Fig. 14.—Details of connecting rod.

THE ROLL OF HONOUR.

Reported by the Admiralty:—

Killed.

Flight Sub-Lieut. D. W. Harrison, R.N.

Died of Wounds.

Prob. Flight Off. F. M. Anderson, R.N.

Previously Missing, now reported Died of Wounds as Prisoner.

light Sub-Lieut. N. Black, R.N.

Drowned.

17782 Air-Mech. 2nd Gr. D. G. R. Shearer.

Slightly Wounded.

Flight Sub-Lieut. C. R. Beaston, R.N.

Accidentally Injured.

Act. Squadron Commander R. Graham, D.S.O., D.S.C., R.N.

Reported by the War Office:—

Killed.

2nd Lieut. C. W. Cameron, R.F.C.

2nd Lieut. H. G. Cornell, Aus. F.C.

2nd Lieut. A. G. Cox, R.F.C.

Major R. Egerton, M.C., R. Ir. F., attd. R.F.C.

2nd Lieut. F. G. Flower, R.F.C.

2nd Lieut. L. L. Medler, R.F.C.

2nd Lieut. J. E. Mott, R. Ir. F., attd. R.F.C.

2nd Lieut. F. E. Neily, R.F.C.

2nd Lieut. R. B. Ottley, N. Staffs., attd. R.F.C.

Lieut. E. H. Read, Can. For. Corps, attd. R.F.C.

Capt. A. C. Yondale, M.C., R.F.C.

55486 3rd Air-Mech. S. Ackroyd, R.F.C.

5529 1st Air-Mech. F. Florobin, R.F.C.

906 H. E. Gamble, Aus. F.C.

17034 2nd Air-Mech. A. Hobart, R.F.C.

27166 1st Air-Mech. J. McAlpine, R.F.C.

106017 3rd Air-Mech. T. Myers, R.F.C.

57677 3rd Air-Mech. D. N. Parsons, R.F.C.

55504 3rd Air-Mech. G. Peel, R.F.C.

25176 2nd Air-Mech. S. C. Pinhay, R.F.C.

55663 3rd Air-Mech. H. Ponder, R.F.C.

10013 1st Air-Mech. E. A. Snelling, R.F.C.

55478 3rd Air-Mech. J. T. Spence, R.F.C.

55470 3rd Air-Mech. J. A. Waters, R.F.C.

Previously Missing, now reported Killed.

2nd Lieut. W. O. Cornish, R.F.C.

2nd Lieut. F. B. Falkiner, M.C., R. Ir. R., attd. R.F.C.

Lieut. E. Golding, A.S.C., attd. R.F.C.

Lieut. J. Hood, Arg. and Suth'd Highrs., attd. R.F.C.

Capt. A. B. Jarvis, Middx., attd. R.F.C.

2nd Lieut. J. MacDaniel, R. Dub. F., attd. R.F.C.

Lieut. D. A. D. S. MacGregor, R.F.C.

2nd Lieut. S. L. Nicholls, R.F.C.

2nd Lieut. J. L. Richardson, Glouc. R., attd. R.F.C.

Accidentally Killed.

7502 1st Air-Mech. B. F. V. Mariner, R.F.C.

Died of Wounds.

2nd Lieut. R. W. MacLennan, R.F.C.

2nd Lieut. D. Sinclair, High. L.I., attd. R.F.C.

55471 3rd Air-Mech. H. Booth, R.F.C.

8303 Sergt. A. J. Sampson, R.F.C.

Previously reported Killed, now reported

Died of Wounds.

1320 R. Lauchland, Aus. F.C.

Previously reported Wounded, now reported

Died of Wounds.

25160 2nd Air-Mech. D. Burn, R.F.C.

Died.

527 G. Bucknall, Aus. F.C.

83343 Mech. Act. Corpl. R. W. Griffiths, R.F.C.

5165 1st Air-Mech. H. A. Harsant, R.F.C.

13071 2nd Air-Mech. A. M. King, R.F.C.

17854 Act. Corpl. F. J. Stebbings, R.F.C.

107145 3rd Air-Mech. E. G. Wiseman, R.F.C.

Wounded.

Lieut. J. C. Bulteel, R. Fus., attd. R.F.C.

Capt. F. G. Dunn, R.F.C.

2nd Lieut. H. J. Griffiths, S. Wales B., attd. R.F.C.

2nd Lieut. G. W. Hockey, R.F.C.

2nd Lieut. A. R. Hungerford, R.F.C.

2nd Lieut. H. Keeton, R.F.C.

Lieut. G. W. Lynn, R.F.C.

2nd Lieut. R. O. Phillips, R.F.C.

Lieut. N. McL. Sanders, Can. A.S.C., attd. R.F.C.

2nd Lieut. R. M. Smith, M.C., Aus. F.C.

2nd Lieut. B. Starfield, R.F.C.

Lieut. N. W. Walmsley, Lancs. F., attd. R.F.C.

2nd Lieut. J. Whittaker, R.F.C.

706 T. H. Barkell, Aus. F.C.

180 C. Keritz.

602 R. T. Perry, Aus. F.C.

Unless otherwise stated the following are R.F.C. mechanics, the figure in brackets indicating the grading:—

A. T. Cullum 9271 (2nd), Sergt. G. Eddington 958, H. Franks 5876 (2nd), R. D. Mould 9533 (1st), T. Rowe 13725 (1st), G. E. Pinder 20087 (2nd), T. Sayers 107462 (3rd), A. Shute 62403 (2nd), A. R. Stanley 45209 (2nd), H. Townsend 78616 (2nd)

T. Black 18732 (2nd), W. Goodman 11259 (2nd), J. F. W. Goodwin 4171 (1st), Cpl. R. H. Helson 9681, F. T. Rotsey 16849 (1st), J. H. Thorne 19208 (2nd) C. E. Turner 51715 (3rd).

H. G. Andrews 56500 (2nd), J. F. Earl 7737 (2nd), S. Hookway 61856 (1st), J. Miller 77882 (2nd), F. Tapsell 54798 (3rd), G. Wyatt 36236 (2nd).

G. Andrews 76330 (2nd), L. A. Brett 16874 (1st), A. E. Clayton 52064 (2nd), B. D. Cowdy 8213 (1st), W. A. Crowe 49035 (2nd), O. R. Harborough 67655 (3rd), T. Haigh 21708 (2nd), Sergt. J. Leigh 4843, J. McMechan 106099 (2nd), S. E. Radford 7434 (1st), J. W. Rogers 55505 (3rd), J. G. Wall 58520 (2nd), F. Whiting 44568 (2nd).

Previously reported Prisoner, now reported Wounded and Prisoner in German hands.

2nd Lieut. K. L. Golding, R.F.C.

Missing.

2nd Lieut. I. D. Cameron, R.F.C.

2nd Lieut. A. F. Castle, R.F.C.

2nd Lieut. A. L. Clarke, R.F.C.

2nd Lieut. R. H. Cowan, R.F.C.

Lieut. L. B. May, R.F.C.

Capt. R. A. Maybery, M.C., Lrs., attd. R.F.C.

2nd Lieut. J. A. M. Robertson, R.F.C.

2nd Lieut. D. M. Sage, R.F.C.

2nd Lieut. G. F. Turner, R.F.C.

P7281 2nd Air-Mech. P. Conlin, R.F.C.

769 Sergt. T. F. Stephenson, R.F.C.

107427 2nd Air-Mech. W. H. Swift, R.F.C.

4400 Sergt. R. C. Taylor, R.F.C.

Previously Missing, now reported Prisoners in German hands.

2nd Lieut. F. G. Baker, R.F.C.

2nd Lieut. J. C. Garratt, R.F.C.

Lieut. A. F. Goodchap, Glouc. R., attd. R.F.C.

Lieut. R. J. E. P. Goode, R. Dub. Fus., attd. R.F.C.

2nd Lieut. S. S. Henry, R.F.C.

Lieut. A. H. Middleton, R. Muns. Fus., attd. R.F.C.

2nd Lieut. G. G. W. Petersen, R.F.C.

2nd Lieut. S. G. Spiro, R.F.C.

Lieut. R. C. Taylor, R. War., attd. R.F.C.

2nd Lieut. A. Thompson, R.F.C.

7216 Sergt. C. J. Butler, R.F.C.

94294 2nd Air-Mech. W. Hewitt, R.F.C.

6211 2nd Air-Mech. T. W. Hughes, R.F.C.

103725 2nd Air-Mech. W. T. Long, R.F.C.



A Further Honour for Captain Murlis Green.

It was announced on January 8th that the King has been pleased to award a Second Bar to the Military Cross to Temp. Sec. Lieut. (Temp. Capt.) Gilbert Ware Murlis Green, D.S.O., M.C., Gen. List and R.F.C. While flying at night on patrol duty he encountered an enemy aeroplane, which he attacked with great determination and skill, and although there was very little light he succeeded in hitting one of the

engines of the machine, which, by reason of the damage, was forced to come down in the sea off a South Coast port, where two of the occupants of the machine were made prisoners.

French Aviator Escapes.

FLIGHT-SERGT. PILOT MOX, son of the Governor of the Invalides, who has been a prisoner of war in Germany for two years, has succeeded in escaping after five futile attempts.

IN THE HANDS OF THE ENEMY.

THE following is an official list, published in Germany, of British machines which the Germans claim fell into their hands during the month of October, 1917:—

37 Sopwiths. Single-seaters.
 No. 524, Lieut. Jeffs, prisoner.
 No. 6358.
 No. B6314, 2nd Lieut. William Hedley Winter, prisoner.
 No. B1830, 2nd Lieut. Robert William B. Matthewson, prisoner.
 Rhone motor 35104, Occupant dead.
 No. unknown, Capt. H. B. Coomber, dead.
 No. unknown, Lieut. K. H. Willard, wounded.
 No. 5918, Lieut. Norton, wounded.
 No. B2214, Lieut. I. H. R. Salter, dead.
 No. B574.
 No. 2563, Lieut. William Oakley, wounded.
 No. B546, Lieut. S. M. Park, prisoner.
 No. A9494, Sergt. Vorbers, prisoner.
 No. B4876, 2nd Lieut. Wilfred Eduard Watts, prisoner.
 F.J. Clerget motor No. D2042, Occupant burned.
 No. B547, Lieut. Hempel, prisoner.
 No. B560, Lieut. Fr. Ludw. Jeamons, prisoner.
 No. B6374, Occupant dead.
 No. B544, Lieut. Grey, dead.
 No. 2425, Occupant dead.
 No. B.A. 374, Lieut. E. Bowell, dead.

In the case of 16 Sopwith single-seaters the numbers of the machines and the names of the occupants could not be ascertained.

2 Sopwiths. Triplanes.
 No. 5377, Lieut. Walson, prisoner.

In the case of one Sopwith triplane the number of the machine and the name of the occupant could not be ascertained.

3 Sopwith Pups.
 No. A635, Lieut. M. Newcomb, prisoner.
 No. B1800, Occupant dead.
 No. A7344, Lieut. P. Norton, prisoner.

5 Sopwith Camels.
 No. G2370, Lieut. D. B. Farquarson, prisoner.
 No. B5152, Lieut. Emdson Smith, wounded.
 No. B2761, Lieut. R. E. P. Goode.
 No. B5178, Lieut. Cartledge, wounded.

In the case of one Sopwith Camel the number of the machine and the name of the occupant could not be ascertained.

9 B.E.s. Two-seaters.
 No. A7138, Lieut. I. N. MacKenna, Lieut. D. Sutcliffe, both dead.
 No. C32192, Capt. D. Walrond Skinner, Francois Johns, both prisoners.
 No. B1125, Lieut. Berry, Lieut. Chambres, both prisoners.
 No. 4A7181, Lieut. R. S. V. Hill, Lieut. R. S. Gilbert, both prisoners.
 No. unknown, Lieut. F. W. Talbott, H. L. Clear, both prisoners.
 No. A7209, 2nd Lieut. Sidney Edgar Stanley, 2nd Lieut. Edgar Vosse, both wounded.
 No. A7231, Lieut. Wooley, Lieut. Scholz, both prisoners.
 No. 3187, one officer wounded, one N.C.O. dead.
 No. A2289, both occupants dead.

8 Bristol Fighters. Two-seaters.
 No. A7280, Lieut. W. Chapmann, Capt. J. C. Bush, both dead.
 No. A7127, 2nd Lieut. Alfred Ed. Turvey, prisoner, William W. Hewith, wounded.
 No. A7244, Lieut. Welby, M. G. Nicol, both prisoners.
 No. A7125, Lieut. B. B. Perry, Lieut. C. H. Bartlett, both prisoners.

No. A7264, Capt. Pater, wounded, 2nd Lieut. Spencey, dead.
 No. unknown. Sergt. Charles Butler, William Lonig, both prisoners.

In the case of two Bristol fighters the numbers of the machines and the names of the occupants could not be ascertained.

12 De Havilland Scouts. Single-seaters.
 No. unknown, Lieut. J. C. F. Agnew, prisoner.
 Rhone motor No. 7450,8670, Edwards, dead.
 No. B2180, 2nd Lieut. A. A. Allen, dead.
 No. A9474, 2nd Lieut. Frederic S. Clark, prisoner.

Two-seaters.
 No. A.M.G.Z.627, 2nd Lieut. Krane, prisoner, Lieut. Engles, dead.
 No. 7642, Lieut. W. R. Bishop, Lieut. Mathews, both dead.
 Rolls-Royce motor No. 2275199, both occupants wounded.
 No. unknown, Lieut. Sam H. Allen, dead.
 No. A2135, 2nd Lieut. Armstrong, 2nd Lieut. Paghe-Evans, both prisoners.
 No. 7 3961, Capt. Harper, Lieut. Owen.

In the case of two de Havilland two-seaters the numbers of the machines and the names of the occupants could not be ascertained.

10 Spads. Single-seaters.
 No. 1536, Lieut. Stewensen (? Stevenson), prisoner.
 No. B3508, Lieut. Long, wounded.
 Hispano-Suiza motor No. 50603, Occupant dead.
 No. A6709, Lieut. Golding, wounded.
 No. B6776, Lieut. Whitehouse, prisoner.
 No. B1565, 2nd Lieut. N. H. Kemp.
 No. 3551, Lieut. H. R. Smith, prisoner.

In the case of three Spads the numbers of the machines and the names of the occupants could not be ascertained.

3 Nieuports. Single-seaters.
 No. B3577, Lieut. Peacker, prisoner.
 No. B3598, Lieut. Ortweiler, prisoner.
 No. C1641, 2nd Lieut. Frederik Miller Nash, prisoner.

3 S.E.s. Single-seaters.
 No. B507, 2nd Lieut. Fitzgerald, prisoner.
 No. A8306, Occupant wounded.

In the case of one S.E. the number of the machine and the name of the occupant could not be ascertained.

3 F.E.s. Two-seaters.
 No. A5680, both occupants (Australians) prisoners.
 No. T.B.1109, Lieut. Jones, Lieut. Godard.
 No. A5702, Lieut. Archibald, Lieut. Greenslade.

3 R.E.s. Two-seaters.
 No. D2452, Occupants dead.
 No. A3859, G. R. Edwards, Lieut. Pollit, both wounded.

In the case of one R.E. the number of the machine and the names of the occupants could not be ascertained.

3 Handley-Pages.
 No. 3123D3, Lieut. Sieveking, N.C.O.s Brooks and Dodd.

In the case of two Handley-Pages the numbers of the machines and the names of the occupants could not be ascertained.

1 Martinsyde.
 The number of the machine and the name of the occupant could not be ascertained.

3 Machines of unknown type.
 No. A3652.

In the case of two machines the numbers of the machines and the names of the passengers could not be ascertained.

Gallant Deeds Rewarded.

It was announced in the *London Gazette* of January 1st that the King has been pleased to award the decoration of the Albert Medal to the undermentioned serving in France, in recognition of their gallantry in saving life:—

Lieut. F. S. Smith and Sergt. W. E. Rhoades, both of the R.F.C. At an aerodrome in France, on October 14th, 1916, a bomb accidentally exploded in the mouth of a dug-out forming a bomb store, which contained a large number of bombs packed in wooden cases and a quantity of rockets. Two men were killed by the explosion, and another man, who was severely injured, was thrown down into the store. Dense volumes of smoke issued from the dug-out, and there was great risk of a further explosion. Lieut. (then 2nd Lieut.) Smith, on hearing a call for help, immediately entered the

dug-out, followed by Sergt. Rhoades, and succeeded in rescuing the wounded man, who would otherwise have been suffocated.

Major L. C. Bearne, D.S.O., and Private A. E. Usher, both of the A.S.C. On October 22nd, 1916, a French motor lorry, loaded with 3,000 lb. of aeroplane bombs, caught fire in the middle of a camp of the Serbian Army. Efforts to beat out the flames with earth proved ineffectual, and after the fire had been burning for seven or eight minutes, and the bomb cases were already involved, Major Bearne and Usher ran up with extinguishers. Both immediately crawled underneath the lorry, and eventually succeeded in extinguishing the flames, thus averting a serious disaster at the risk of their own lives. Major Bearne was severely burnt about the hands and arms.

AVIATION IN IRELAND.

As already announced in "FLIGHT," aerodromes are being established in Ireland, and interest in aviation matters is on the increase. Unfortunately labour questions have arisen, the men apparently holding the view that wages should be on the English scale, while the employers based their contracts on a figure between the local rates and the English rates. Curiously enough, the publicity given to the prospects of aviation work in Ireland seems to have stimulated the flow of skilled labour to English aircraft factories, a result which bears out the contention that more publicity in connection with munition work in general and aircraft in particular would ease the tension between the two countries. Owing to the custom of doing things by committees, progress in the establishment of aircraft factories in the south of Ireland is slow. Individual manufacturers on this side are inclined to wait to see what their trade competitors decide to do, and in the meantime the contracts are taken up elsewhere.

The Air Services Exhibition, with which the Countess of Drogheda's name is identified, has just concluded a successful visit, making a stay in Dublin before proceeding, it is stated, to America. The novelty of a "Flight Lottery" with 1s. tickets was greatly appreciated by Dubliners, the winner

being entitled to a flight of one hour in a military machine with return fare from any part of Ireland thrown in. Aeroplanes are still so much a novelty in Dublin, that the most effective advertisements of the exhibition were two flights over Dublin by a military aeroplane with the Countess of Drogheda as a passenger.

The situation with regard to the flax supply is being commented upon, and the Department of Agriculture is holding an enquiry into the subject of flax growing. Farmers are complaining that at the fixed prices the crop does not pay, as it is a risky one to handle, but to give another side of the picture rents of £15 per acre for one year's cropping with flax are being paid. If there were any certainty that flax would always be required for aeroplanes, one would expect the leading aircraft firms to establish farms for the growth of flax experimentally and on a commercial scale. The yield of the Irish flax (1917) crop was below the average per acre, but the increased area planted resulted in a total production of 140,000 stones in excess of last year's figures. There will need to be a much greater increase this year if the loss of Russian supplies is to make good.

R. H. L.

CORRESPONDENCE.

Construction and Factories.

[1953] The whole country at length having woke up to the fact that aircraft is certain to take a much greater share in the future decisions, we beg to unburden ourselves of a few ideas which have been germinating in our minds for some time past.

There are rumours that we are about to rely a great deal upon our American Allies for securing preponderance in air fighting. No doubt the facilities of America, not only in factories and man-power, but also in material, are very great, but one's experience, extending over many years, as regards delivery of goods, is that our friends on the other side of the "Herring Pond" are very optimistic about dates. Therefore, we beg to suggest that it would be very unwise not to encourage those English firms who, whether as direct contractors or sub-contractors, have in the past proved their capacity until at any rate the promise of America's assistance has materialised in a satisfactory manner. It seems improbable that on the other side they will be able to do more between now and the spring than get sufficient aircraft ready to act with their own armies.

Our feeling is that not only should the established firms in England be kept busy to the utmost of their powers, but that they should be allowed to develop as far as possible. Their foundations are laid, and they can add a storey while the Americans are getting in their own foundations.

One of the reasons alleged for getting aircraft from America is to save ship-room, it being easier to bring a finished aeroplane rather than timber, a considerable portion of which eventually becomes scrap. But would it not be better still to build aircraft altogether of British materials so as to save ship-room entirely?

At the present moment the aeroplane designers, to a large extent, have been working on the assumption that woods, such as silver spruce, are always obtainable; why should they not be asked to make their new designs or adapt their old designs to use those timber supplies which are in sight? For instance, spars which are now made out of silver spruce could be made from English ash combined with poplar or beech, the one would add to the strength and the other to the elasticity, these woods being heavier than silver spruce, but of course much stronger per pound weight, the plan of the spar would have to be altered.

As only a few designers are now permitted to work on new ideas, we suggest that these might be called together occasionally at the Air Board to meet one or two experts who are conversant with the qualities of English timber, and also in a position to state what supplies are likely to become available.

Another question which appears to require consideration is the policy apparently now being pursued of building factories in outlying or rural districts, where there is very little labour on the spot, when there are numbers of premises to let in districts where the requisite labour lives on the door step. In London alone there are many big places, such as motor 'bus garages, electric lighting stations, woodworking factories, &c., waiting for tenants, where suitable labour lives all round. The working classes cannot all travel so far afield as the outer districts, where new factories are constantly being erected, firstly, because the travelling loses them several hours a day on account of the congestion, and secondly costs 5s. or 6s. per week, so that out of their actual earnings at least £1 per week is wasted. They prefer to get along as best they can by working shorter hours in their own districts, where they have the further advantage of getting home to meals.

No doubt none of these premises would make a complete aircraft factory, but is not the system globule safer in a district which is likely to be raided by the Hun? A very large factory forms a good mark, especially if not camouflaged, and is, therefore, more likely to be destroyed entirely by explosive or incendiary bombs than if split up into a number of sections scattered about at a distance of half a mile or so from one another and indistinguishable from the surrounding property.

Against this system the cost of transport from one section to another has to be weighed, but our own experience shows that there is no more time lost in running a load of ribs by motor from one factory to another than in carting the same articles by truck from one portion of the factory to another when the factory is on the big scale that now seems to be coming into fashion.

For and on behalf of THAMES AVIATION WORKS,
J. READ BURTON, Director.

141, Curtain Road, E.C. 2,
January 1st, 1918.

Flight Without Wings.

PROFESSOR ALEXANDER GRAHAM BELL, the inventor of the telephone, and one of the members of the Aerial Experimental Association which produced the "Silver Dart" many years ago, offered a remarkable forecast of the aeroplane of the future in an address before the Empire Club at Toronto on "The Substance of My First Research."

"The aeroplane is to be a deciding factor in this war," said the professor. "Men now fly 20,000 feet in the air, and what I want you to note is that theoretically the machine at that height should be more efficient by flying faster and more economically. Supposing your propeller has the same push at that height where the air is rarer, you should get more speed."

Dr. Bell then gave a scientific explanation why the aeroplane should travel faster at the greater height. A change of gear, as in a motor car, which would make the propeller travel faster, he pointed out, was the solution of this problem, and he predicted the day when the flying machine would attain such speed that wings may be unnecessary.

"Now, if we have machines flying without wings, how about flying without engines?" added Dr. Bell. "All other things that fly fly without engines."

"Consider the albatross, which, without the movement of its wings, can overtake a ship even when the bird is travelling against the wind. The flying of these birds is a problem open to science. The question is, 'How do they do it?'"

A MESSAGE FROM THE TRIER PRISONER OF WAR CAMP.

Those who may imagine that we are introducing below a new section to FLIGHT, we hope will not be grievously disappointed when they learn that the matter which follows is the reproduction in facsimile of the front page of No. 2 of a new publication—in spite of Dora—"The Barb," issued at Trier, one of the German officer prisoner of war camps, to which reference in the past has already been made. This little publication has been sent us, as may be noticed, by the publisher, Flight-Lieutenant J. B. Daniell, R.N.A.S., and as it is so brimful of cheerfulness, and little points, all helping to convey to those at home an idea of the life our absent heroes are experiencing, we offer no apology for re-printing on this and the following pages the entire little four-page "House" journal. Some items of "news" will be noticed, notably an item relating to an attempt at escape by, and its consequences to, Captain Leefe Robinson, V.C. We offer our hearty congratulations to every one concerned with "The Barb," and welcome the evidence which it affords of the irrepressible spirits and vitality of those in duress vile. As the German authorities permit the little paper to be sent out of the country, we may hope to "repeat the dose," should other copies reach us.

THE BARB

J. B. Daniell, Publisher — L. A. Smith, Bus. Mgr.

Vol. 1, No. 2.

Trier, November 24th 1917.

Price 1 Mark.

THE REASON WHY.

With apologies to Eleanor Glynn for
Pervverting to This Use the Name of
her "Tres Moutard" Novel... Why
Those Who Moved in the Heavens
Above are Among Those Present.

If The Barb ran to a Society reporter, and she were assigned to bring in a description of one of our "soirees" she would doubtless state that "among those present" were "a considerable number of officers from the Allies air forces." Undoubtedly she would end up with the usual stereotyped statement that "an enjoyable time was had by all."

It is an undeniable fact that in the continuous operations of our aeroplanes over enemy territory, numbers of our pilots are "brought down" by anti-aircraft fire, air fighting or engine failure—although the latter cause is fortunately most rare—and are held prisoners in Germany.

Thus, naturally, a good deal of flying talk is heard in these camps, and one will often find, in the cool of the evening, a pilot or two throwing a few difficult "stunts" around the stove, for the benefit of the unsophisticated. Naturally also "how I came down" is offered frequently to the tolerant, and after listening to a great number of these yarns (of which the writer can contribute his own) a composite would figure out about like this:

"It was the early morning stunt. Just before we left the ground the Flight-Commander said to me, Bill, (he always called me Bill, the Flight-Commander did,—he was a top hole chap) Some of these new fellows are a little wild and gun-shy yet, so I rely largely on you Bill. (Of course I'd been at the front for some time, this was my third week.)

"You know me, George," I said. (I always called the Flight-Commander George.) That was all.—Oh! we knew each other, George and I."

"It was just dawn when we left the ground. We climbed directly into the sun, keeping fairly good formation. We crossed the lines at about 16,000 feet. The Visibility was fairly good up top side and some low clouds kept the Archies from bothering us much. The usual smoke signals went up on the enemy side when we crossed the lines, and I kept a sharp look out for enemy machi-

THE PUBLISHERS BEG TO
ANNOUNCE THAT PERMIS-
SION HAS BEEN OBTAINED
TO SEND "THE BARB" TO
FRIENDS OR RELATIVES.

nes. We continued to climb until my altimeter showed 23,000 feet. Our squadron always climbed high in the early morning so that the chances of meeting an enemy flight above us in the sun were less. The Flight-Commander just ahead stalled his machine and stoppended his prop. This was his signal to me to do the same and come up alongside him and have a chat. I did so, and gliding easily wingtip to wing-tip we carried on. George was a top-hole pilot and I,—well I'm pretty handy in a machine if I do say it myself. George made a gesture downward with his hand and following it I espied, about 6000 feet below us, the sun flashing upon the bright-colored machines of the Baron's famous "Circus".

"The Circus," yelled George to me.
"The Circus it is," I screamed back.
"Whadeyer think Bill! Shall we have at 'em."

"There were more than our number of enemy machines down there and the stoutest pilots in the German Air Service, but it was rather up to me and so I simply yelled back. "You know me George." George nodded to acknowledge my terse statement. We dived to get our 'props,' and waited for the formation to come up. They always fell back when George wanted to talk things over with me. George's gun opened up for about 10 rounds and the flight followed suit. All the Vicars were working well."

"Down we went in a 45 degree dive, manoeuvring to get ahead of the Circus and between them and the sun. The low clouds had blown away and the Archie batteries opened up on us when we had got to about 19,000 feet. They were bursting all around us but I paid no attention as my eyes were glued upon the enemy machines which were now about 2000 feet below us. Suddenly something hit the tail of my machine a terrific blow to the accompaniment of a noise like the crack-of-doom, and I knew by the jerk on my rudder bar that my tail was hit. Glancing swiftly back I saw that Archie

had carried away about half of my tail plane. The machine was out of control for a second or two but I managed to keep formation and regain control. The enemy machines stalled up at us firing their double guns full belt. My machine was hit in many places but I just had an Albatross on my sights and was pulling the old plug and pouring lead into him. He went down in an Immelmann, all arsey-larsey and after side looping to avoid becoming the target of another machine I stalled, spun, rolled and climbed to dodge two others. After exchanging several bursts with these machines, they pushed off as our flight was reforming. Just as I was going to rejoin old George my engine suddenly conked completely out. I tried all the tricks but nothing was any good and as we were far behind the enemy lines I just had to spin down to the ground where I immediately set the old bus on fire after counting no less than 641 bullet holes in her and the damage done by Archie. And that's the reason I'M HERE."

"Lights out!" yelled someone and waking up his audience, whose blue uniform had given promise of a more attentive hearing, the pilot moved off to bed muttering to himself.

THE HISTORY OF THE RUINS.

We Don't Think . . . Hitherto Unpublished Chronological Story of The Ruins and Who Ruined 'Em. Obtained from Data Found in a Papyrus Discovered in Gizzard of a Canteen Chicken, Swallowed Thousands of Years ago.

The legions from Britain had returned to Rome, for Caesar was getting the lads of the village together to repel Attila and his gang of long-whiskered strong-arm-men who were sweeping towards the great peninsula.

A policy of retrenchment in Gaul had also been "railroaded" through the Roman Senate by the "don't wait and see" politicians of the period. The Foreign Secretary was worried stiff, for the "situation was serious" and unless he framed-up an expedient Foreign Policy without any monkey-business or loss of time, his imminent prospects were "grave". (If the underfed animals of the amphitheatre left anything to put in it. Ed.)

"O Tempora ! O Mores !", wailed the undersecretary, which all Latin students know means "What putrid times ! What stoker's mess deck manners," for upon him the man-higher-up had worked off a little steam, and, surreptitiously wiping his stylus upon the back of the stenographer's toga he blew gustily upon his signature on the edict to Gaul.

The edict read something like this :

"TO LARSPORSENA OF CLUSIUM, COMMANDING THE LEGIONS OF ROME AND OF TIBERIUS CAESAR —, SOMEWHERE IN GAUL, THIS PAPYRUS :

"GREETING ! CHEERIO ! HOW'S 'YER FATHER ; - -

"KNOW YE that the Senate has ordered that the Roman garrisons in Gaul be reduced in numbers that ye may send hot-foot to Rome all men of the year 201 class, complete with helms, shields and bucklers. (Whatever they are. Ed.)

"FURTHERMORE that ye make choice of a position in Gaul and thereupon build ye a suitable fortress for H.Q., making a 'pukka' job of it.

"FOR TIBERIUS CAESAR, these HIS COMMANDS, by the hand of his servant Kickero, for SPURIUS LARTIUS, SECRETARY OF STATE".

"Dict. Stenog. Duo. ROME, 3rd. Moon, Year 200".

A post-script to the papyrus advised Larsporsena not to call for tenders on the castle building job, or to try and grab off any commissions from the plumbers or plasterers, as a reform wave in the Department of Public Works had already landed an official in the Galleys for "working" a ten per cent hold-out in a little repair job on the Roman Forum.

A couple of moons after the edict had been received in Gaul, Larsporsena and his aide-de-camp came gavotting over these hills at the head of a glittering cavalcade of men-at-arms. He was fed-up to the teeth, for the day was chill, and he was wearing his summer armour, and to add to this discomfort his sword bearer had dropped the demijohn awhile back, just as he had fixed his mouth up for a good long swill.

"By the trousers of Jupiter" shouted Larsporsena, for the din of the clattering armour on the shivering men-at-arms was like the racket in a boiler-maker's shop, "This a goodly spot, is not it ?" He waved a sword still wet with the gore of the careless sword-

bearer, towards the present site of Trier.

"Yes it is—not" screamed his aide, but yonder in the valley lies a hamlet, O Larsporsena ! By chance there dwells there a vintner, and a spot of booze would hit me right where I live". They clattered towards the little hamlet founded here by Augustus Caesar about the year O.

"Well said", yelled back Larsporsena, "come on we'll try'er", from which sprang the name.

And so it came about that finding raw red vintage at the wet canteen they quaffed deep quaffs and the place looked 50 % better when they staggered into the Roman Encampment that night, and in the morning they got the boys at work on the castle.

The castle was built complete with a moat, drawbridge, portcullis battlements, secret passages and an imported Roman ghost. The Romans sallied about, hither and yon, employing themselves by sacking the native villages and feeding their prisoners-of-war to the menagerie down at the amphitheatre, until eventually Charlamagne the Great appeared some centuries after the demijohn episode and smiting the garrison hip and thigh, took the castle by force of arms, legs and a battering ram. Poor old Larsporsena had bitten the dust some hundreds of years before this, his aide-de-camp having given him a wallop over the bean with his gladius in a little episode over the dice and a bottle or two, helping himself to this job.

Charlamagne lived here awhile but complained of a lack of sunshine and "joie de vivre", and eventually advertised the place for sale or lease in "Country Life" and left for Monte Carlo.

Being unable to find a tenant he allowed the place to go to the dogs, and the moth and dust did corrupt until the place deteriorated into the picturesque old ruins of today.

And there you are ! !

SATURDAY, Nov. 24th, 1917.

STICKING "Well ! Well ! Well ! [AROUND Here we are again !" as

the so-called funny man in the Harlequinade says year after year at the pantomime. It was a close thing, though, not being here again, was not it ? Shortly after our Alpha and so nearly our Omega issue of last week, had gone to press, information was received here that all the British had been given the "move-on" sign, and that we were to be sent to some remote corner of the German Empire where wolves howled all night at the moon, and the wind blows chilly off the Polish Steppes. Hydra headed

variations of the orders sprang from the mouths of calamity-howlers and rumor-mongers, and some hours later we were firmly impressed with the idea that, from all accounts, the salt mines of Siberia were serene and beautiful compared to our destination. The slough of despond into which we fell, and wallowed, was very deep, black, and sticky, for, to add to the mental distress provoked by the rumors, came the horrible thought that the white wings of this great family journal were folded for ever in rest : That we had launched a publication which was apparently doomed to the most ignominious fate of any that ever came off the press—to suspend publication after our first issue ! ! !

Fortunately the orders were countermanded, and, for the present, at least, we abide here, with the ruins and the beer (pardon the rythum), well enough content, and if not happy, perchance well satisfied.

We take this opportunity to thank our readers for the very kind reception accorded our initial issue, by reason of which we were able to put The Barb on sale for fifty pfennigs instead of one mark, which we had been promised by our advance subscribers.

We trust that you will understand that in producing this description of "nobody home" literary junk, we have no resource to hashish or opium, and therefore when the yawning columns still call we drive a faltering pen with a mind vainly groping at intangible ideas, and pray for your indulgence and literary contributions, so please get busy.

Amongst the literary contributions to The Barb this week were some of those pithy paragraphs about "Things we Want to Know". We regret that we were reluctantly compelled to reject these, for they were excellent examples of their kind. We do not intend to introduce this column, however, as it invariably holds out invitation to some for obscure "digs" at people, the humor of which cannot always be generally appreciated, and, in the end, some person who has been "dug," bounces a brick off the Editor's dome-piece.

Since our last issue the Editor has received notice from the Netherlands Legation at Berlin advising him, on behalf of the British Government, that he has been promoted to the rank of acting Flight Lieutenant, R. N. A. S. We congratulate ourself, with whom we are most popular, upon this happy event.

LETTERS OF ADAM.

Being the Correspondence of Lord Plantaganet Vere de Vere to this Chum, Percy Marjoriebanks.

"Dear Percy: Well old dear! I am scribbling a line (you know how I hate 'scribbling a line': I do miss Barker, he wasn't such a knut as a secretary but he could mix a bally fine cocktail) to tell you that I am now a prisoner of war at Trier. The British Museum ought to be able to tell you all about Trier, as it contains some of those comic old Roman ruins that one finds all over Europe to remind us what smart Johnnies there were scheming schemes on the Appian Way in those days, when our ancestors were running about in Bear skins, chasing the festive Bunny with a stone club. Some of these, which we can see from the camp, are of a castle where Charlemagne was said to have lived, and caroused a few carouses. He must have got tired of the bally place, however, for there are none of his relatives there now, and, from the appearance of the place, I should say he burnt it down for the insurance.

"Well, following the late emigration from the Italian front the German authorities barged us along here to make room for an Italian quarter in Karlsruhe. The day after I arrived I was having my breakfast in the Canteen, and, putting it down to wipe a little froth off the old nose I thought I saw something that looked like a chicken on the bar. It hipped me a bit, Perce—you remember what old Doc. Muzzy told me when he advised the Keely cure—and so I just left my unfinished breakfast in the stein and wandered away feeling a bit nervous. A moment later a chappie brushed by me swinging the thing by the legs. I kept a jolly close grip on myself, old thing, but the Johnnie went whistling along up the stairs. He passed one of those jolly French orderly chappies and so I asked him in rather shaky French if the gentleman ahead was carrying anything, and, if so, what. 'Mais oui; Monsieur, un poulet!' he said, waving hands. Well believe me old top, that relieved me tremendously and I hastened away and placed an order in the chicken department 'tout de suite' and, 'ipse facto' found on delivery that the bird clashed not at all with the general antiquity of Trier.

"I am playing a little drawing poker. One of those bally Yankee games, but really most awfully jolly. A chappie deals you five cards and after you decide what you want to do with them he offers you from one to five more for a trifling sum, represented in units of beans, or 'chips', at so much per bean. Well, then with the best of the first cards he gave you, and the others you paid for, you start out on a wild orgy of specu-

lation. Something like this: The fellow next to the dealer, looking ineffably bored, 'bets a bean'. The next Johnny says, rather grimly, perhaps, 'your bean a-n-d a bean'. Next door to him is a chappie who might then say in a colorless tone 'I'll see you!' About this time I generally come in with a fanfare of trumpets. I also desire to 'see' all the old beans, and say so, adding to the steady exodus from my pile to back up the statement financially. Butt-in now the dealer, a saturnine individual who drew one card, and who regards his 'hand' with about as much expression as a wooden god. 'A-N-D T-E-N' says he in a voice which seems to promise that one will be bruised, mangled and torn if he fools with that pot. The others 'goaway.' Having the 'No lark more blithe than me' feeling, however, and three sixes, I decide to 'see'. The dealer 'shows down' four fours; 'four little fours' he calls them, and adding a royalty of five other beans to the pot as a token of my appreciation of the aforesaid number of fours, I shove 'em across to him with a sickly grin. The others also count five more beans out as their honorarium for four fours and pass them over amid audible soliloquy about 'horse-shoes' and the 'limit', and invitations to 'talk about luck' etc. Trusting that nothing will occur to mar the pleasure of the evening we pass to the next hand. It's a jolly game, full of life and colour.

Even as I write a hand falls genially upon my shoulder. A game is toward—I will play—I will. And so, Perce, I must leave you and this remarkable literary effort. I wear the smile of pleasurable anticipation common to all ere the fickle jade has turned another page of that jolly old book 'Chips that Pass in the Night' and the smile, like the beans, has passed away, and 'Like snow upon the Desert's face—is gone.'

Well, Cheero!

Yours...VERE de VERE.

A DAY IN THE LIFE OF AN OFFICIER-KRIEGS- GEFANGENER.

(contributed.)

My God! What a head!! and what an awful din! Oh! it's only the orderly; he really makes more noise than the French orderlies with their clogs. Now then, roll out, and see if a bath will do it any good. After hobbling downstairs in scanty attire, one finds the bathroom filled with chattering, whistling, and singing people. Why on earth do they do it? I'm sure they do't even enjoy it

themselves. That's over, and things begin to look a little brighter. Back to your room, which you notice for the first time, is strewn all over with bottles, glasses, and general remains of "A night before". A spot of dressing; a spot of cursing one's Mess President because breakfast isn't ready; and you decide to fill in the interval with a visit to the Barber. Of course the saloon is packed, and visiting it every ten minutes after, it seems to get worse and worse. Ah! breakfast is ready at last. Good enough! that makes up for a lot. Now its time for Roll Call, where everybody meets' and has exciting conversations, as though they hadn't seen each other for years. Roll Call over, one has another attempt to get into the Barber's shop, and discovering that there is a possibility of getting a shave within half an hour, you sit down. One usually finds a few of our Marine friends there, and often our Scotch American Captain, who, if you are lucky, will give you a twenty minutes oration on the mistakes of our leading politicians for the last couple of centuries, and will express his personal opinions on how the war is, and should be, conducted, even dragging poor old Gladstone into it.

A glass of beer, then a walk, and a talk, with a fellow who discusses expecting to have his foot off, with about as much emotion as if he were going to have his hair cut. These fellows who have really been through the mill, are extraordinarily philosophical over these, what they appear to class, trivial matters. Another visit to the bar, and a spot of vermouth, where one hears such conversations as "The correct length of finger nail", or whether the right team was chosen to play against the French, or not. As usual "Our Snotty" with "the barb" is at the bar with his hand well full. Lunch comes along: The noise grows worse and worse: Somebody hits the table with a spoon, and everybody follows suit. Then they all say "Shush". Its nothing at all, only someone's elected to make a speech. What funny fellows they are! they seem to dote on making speeches, and always choose for it the time we are all busy eating. The topic at table is usually the probability of "The Rest" beating our "A" team at football.

Something unusual at table; our Sports Magnate is actually seen to drink a glass of water, and smack his lips as though he liked it. Everyone goes to see the football match advertised to commence at 2 o'clock, but on arriving at the ground, there is not a sign of anyone dressed for football,

but that's nothing, about a quarter of an hour later they arrive, and start to play. It's quite an exciting game for the onlooker, what with appeals being made by players from all directions, to the bewildered and terrified referee, who is so petrified that he can hardly raise enough wind to get a squeak out of his whistle, and balls being Kaputed on the barbed wire.

On returning to the barracks after the game, one oftimes notice a queer looking bird escorted by a tiny youth who is zealously guarding a bundle of sticks, which turns out to be a camera. This is not an unusual sight, but lots of people seem to get very animated, and hasten inside, appearing again a few minutes after, dressed up to the nines, and have their photo taken. It is extraordinary what little things amuse a gefangenen. Now a spot of tea, which no sooner have you begun, than a weird buzzing noise through the whole barracks, announcing the fact that it is time for roll call. Roll Call!!! My God! another awful climax. We have got to have roll call at 7-30 to-morrow morning, and rumours, always rumours, of more arrivals, and one floor colliding with the other or something terrible. What brains we must have to be able to stand it all. 5 to 7 the Bridge Tournament. Oh this...!!! Bridge Tournament! Yes I knew it. Lost again. What awful paper we do hold partner, and if only you had not had that glass of wine before playing. Your partner says "What about a drink?", and your answer is yes. Back to the bar again, and vermouths.

Everybody has dinner, but not us, it seems we are always a quarter of an hour late. The Mess President at last arrives, smiles, and says "Come on old buck" have a beer? dinner will be a little late. What can a fellow do? Right Oh! old man, and danke. Dinner arrives at last, the topic of conversation being the afternoon's football, and the unknown terrors of the 7-30 appel to-norrow. After dinner, a little party, a spot of wine, and a little chat. Then to bed.

What a life!!!

SPORTING NEWS AND VIEWS

The soccer match, French vs. English, was opened by Colonel Bernard who kicked off at 2.30 and from that time it was obvious both sides meant to win. The play during the first quarter of an hour was very even and a full defence tended to dishearten a weakened forward line. Towards half time the English forwards made a few unsuccessful runs, at which the French retaliated and after a slight melee some yards from the English goal the ball rolled through unresisted. Score 1-0. After a short while of even play half time was called. During the second half the brunt of the work remained with the halves who put u

an excellent fight. After a while the English forwards obtained a corner which P. N. Van Bourle put through with a nice head shot, making the score 1-1. For the rest of the game the forwards of either side made determined rushes which ended either by wide shots or being held up by a too powerful defence, in which the French goal keeper put up a good part for the French. The English team consisted of Capt. Hartley, goal; Lt. Hill and Lt. Carruthers, back; Lts. Cullen, Stevenson and Woolliams, half; Lts. Uniac, Van Bourle and Hutchings, forward, and the French team, of Mm Sire, goal; M. Rouy, and Four Seter back; M. Pertus, Coti and Duffan, half; M. Delbigue, Lehman and Colneme, forward.

A PERFECT HAND.

When you come to the end of a Perfect Hand
And you sit alone with your Trick
And the swears rip out fit to beat the band
For the slip that has made you sick,
Do you think what the hell can a Perfect Hand
Avail if you won't lead Trumps
And your soul sinks down at your partner's frown
And the dear friends have to part.

Well this is the end of a Perfect Hand
Near the end of the Tourney too,
You are minus a score that is big and strong
Plus a curse both unkind and true
That he'd never seen your Perfect Hand
"And the certain slam you've bossed,"
It is ten to the bad and doubled—damned
With the snarl of the friend you've lost.
"Pop... Pop."

CHURCH SERVICES.

English Church Services will be held in the Chapel next Sunday Morning at 12 o'clock. Captain G. A. Mackenzie will take the service. Officers and men are cordially invited.

FINANCE.

The cash office is open every day in room 77 from 3-30 to 4-30 p.m., for those wishing to draw cheques or drafts against their English bank accounts. Officers should bear in mind that cheques or drafts are only sent away for collection once a week, this being done on Saturdays.

COMMUNICATIONS.

"Telegraphic Address 'Asbestos'."

To the Editor:

Sir: I noticed in your last, or rather your first edition of "The Barb", that the theatrical people have chosen a very "hot" combination in the Box Office; viz., Messrs. Caye and Pepper. A. SPOT.

REPRESENTATIVE VISITS.

There visited the camp on Tuesday last, Dr. Geert Hockstra, who is attached to the Netherlands Legation at Berlin, for the purpose of looking after the interests of British prisoners of war. Dr. Hockstra was visiting some wounded Britishers in the hospital here, when he learned, from Lt. Kelly, of the newly established British camp here, which he immediately visited.

The amputation cases and wounded officers here, who are on the lists for exchange, either to England of a neutral country, brought up the matter of the delay in these exchanges, and received his promise to try and have the matter expedited. The matter of being allowed to go out for walks, which is under considera

tion, would, he stated very probably be shortly arranged, satisfactorily. He promised to see that the camp was supplied with sporting requisites, church equipment etc., which we want, at once.

Dr. Hockstra recently attended the trial of Captain Leefe Robinson, V.C., who was charged with trying to escape, and with bribery in this connection. Captain Robinson was sentenced to one months confinement; and another officer, Lt. Barelein, to three months for a similar offence.

THE LIBRARY.

First they said they would, then they said they would'nt then they said we'll wait and see. In a word the Librarian requests those officers who were good enough to take books to carry to the new camp, to retain them until we are more certain how long we shall be here; and in the meantime to circulate them privately. The man who makes the best job of it will be rewarded—rebinding all the paper backs.

LOST AND FOUND.

LOST—Book: "The Serpent's Tooth"—by Crooker. Name H. Kirby on fly leaf. Return to Captain Hudson, Room 86.

HELP WANTED.

DRUMMER WANTED—If there is any officer in the Camp who has experience in playing a side drum, will he kindly see Lt. Rigby, Room 72 at his earliest convenience.

Price of Admission One Mark

THE CAMP THEATRE

General Mgrs. Capt. Fleury and Lt. Carruthers

SATURDAY and SUNDAY NOV. 30th., and DECEMBER 1st. 1917.

Doors open 7.15 p.m. Commence 7.30 p.m.

ASILE DE NUIT

A comedy in one act by Max Maurey.

Le Directeur. Capt. Roye Fleury.
Ma Soupe Lt. Duffau.
Haps Lt. Geo. Fleury.

L'INROULABLE

One act, by Vely.

Suzanne Lt. Coti.
Henri Lt. Garin.
Anna Lt. Cochevelon.

LE COMISSAIRE EST BON ENFANT

A comedy in one act by Georges Courteline.

Le Commissaire Lt. Faidide.
Floche Lt. Lecoainte.
Breloc Lt. Cheron.
Un Monsieur Lt. Dejean.
Un Agent Lt. Voillard.
Un Agent Lt. Fleury.
Mr. Pumez Lt. Duffau.
Madame Floche Lt. Cochevelon.

Lieutenants Pepper and Caye will open the BOX OFFICE on Friday and Saturday Nov. 22nd. and 23rd. from 10 am. to 12 noon. All officers are kindly requested to book a seat in advance.

AIRISMS FROM THE FOUR WINDS



LORD ROTHERMERE, the new President of the Air Council, was sworn as one of His Majesty's Secretaries of State at the meeting of the Privy Council on January 2nd.

"MARIA GLORIOSA," the great bell of Cologne Cathedral, which weighs many tons, cast from French guns captured in the Huns' iniquitous war in 1870-71, has, with the New Year, returned to its original walk in life by being commandeered by the German Government for melting into material for war purposes. For the last time this converted symbol of war gave voice on New Year's eve, having been heard for the first time on March 22nd, 1877, the birthday of Wilhelm I. May its destruction be an omen heralding the severance of the unnatural ties which since 1870 have bound Alsace-Lorraine to their German tyrant task-masters, and so help to ensure that real Peace upon Earth message, which for so many years Maria has purported to send forth in such sonorous notes.

SIR WILLIAM RAMSEY was pretty drastic upon University inefficiency in his remarks the other day, when speaking at King's College, London. It required, he said, some great disaster to awaken the nation to the danger to the State of the doctrine that a University was merely a nice place to send a young man to spend the most critical years of his life in doing as little as possible. Therefore, continued Sir William, accompanied by "audible" smiles, "I ceased to be a lecturer on Latin and began to lecture on aeroplanes." The country can well do with many more Sir William Ramseys under the same conditions.

INCIDENTAL to the conferring of an honorary degree upon Prof. Schütte, inventor of the Schütte-Lanz wooden-frame airship, it has just been made public in Berlin that a Schütte-Lanz some time ago accomplished the longest airship cruise on record—Germany to Constantinople. The paragraph issued semi-officially says:—

"Regarding the technical developments which have taken place in the construction of S.-L. airships during the war nothing has reached the public, for military reasons, but it is an open secret that these vessels have been associated in very eminent degree with our aerial successes on land and sea. In view of the Constantinople cruise, we may be sure that there have been highly interesting improvements in the S.-L., which, however, may not become generally known until after the war's end."

Perhaps, provided always no "S.-L." units are included in any nocturnal attempts to attack this country.

In the selection of the British Museum for the housing of the Air Council, is there somewhere in the background a "Bolo" microbe at work, spreading the idea of its selection, so that with such a magnificent mark for Hun bombs there may be more than a little dog's chance of doing in presently at one fell swoop, the whole of the very live Air Council, newly appointed? We ask, is there? The nation at this critical stage of the war can hardly contemplate with equanimity so vast a calamity as the extinction of practically all that matters in the carrying on of the air in the war.

LORD SUDELEY's interpolation in the House of Lords upon the subject, on Wednesday of this week, should, it is to be hoped, help to bring the whole question to a correct focus in the official mind.

THE question of utilising certain Lancashire cotton mills for the purpose of manufacturing aeroplanes was advanced a stage further at the meeting of the Cotton Control Board in Manchester last week. It is understood that the Government will shortly make a definite announcement as to the number of buildings that will be required. The Cotton Control Board will then be asked to prepare a list of disused cotton mills that are available and are understood to be suitable for conversion into aircraft factories, and to specify districts where there is a surplus of labour for their establishment.

AVIATION progress is further marked in the announcement of Lord Ashbourne having with a pilot of the R.F.C. "flown over Dublin in a kilt." Advocates of the helicopter need not despair after this.

QUITE a novel appeal to the sporting instincts of the Irish was made, by the bye, about the same time and in connection with the same good cause, the Air Service Exhibition, as Lord Ashbourne's remarkable performance in a kilt, in the form of a great flight lottery for a trip in an aeroplane. In this the purchaser of the winning ticket (either sex) was entitled to fly in a military aeroplane which recently flew across the Irish Channel. Tickets were 1s, each, the flight taking place from Dublin the fare of the lucky investor being paid from any part of Ireland. The novelty of the competition at such a popular price proved a sound attraction for thousands.

MISS GERTRUDE HINDS has had the honour of being fined 10s. by the Kent magistrates, with the added warning of worse to follow in case of repetition, for photographing a fallen Gotha without official sanction. It is, without doubt, hardened criminals of this type which has necessitated the bringing in of "Dora" regulations, as it is obvious that the only possible reason for such a proceeding on Miss Hinds' part was to impart information upon details of Gotha machines to the enemy.

IN like manner another class of criminal must take his share of blame for "Dora," in this case represented by a London electrical engineer, who was at Greenwich on Saturday fined £5 for not reporting to the police that he had found a fragment of an enemy bomb which dropped in the road near his house. He had placed the fragment on a shelf in his house, and all the people in the road came to see it. There was evidently no limit to the lengths to which this specimen of criminality was prepared to go.

THE insistent decision for landing our exiled prisoners of war who have just returned from Germany, at Boston, and Boston only, had been, after all, arrived at by the German authorities under a good sound system of reasoning. All efforts upon the British side to select a more convenient port proved fruitless from the first. As the Hun command argued it was absurd and inhuman to send these poor crippled heroes to the spot where London once stood, or to where Hull once flourished, before these and other centres of industry were wiped out by Zeppelin and aeroplane attacks. Therefore, from a humane point of view they insisted upon Boston in spite of its obvious drawbacks, necessitating a halt for 12 hours or so at Clay Hole, some six miles below Boston, whence, when the tide served, the released men, cot cases included, had to be transferred to tenders as a preliminary to being brought up to Boston on the next tide. But after all what does it matter, if the annihilating effect of the Zeppelin campaigns has again been forcibly demonstrated to the German public, so long as some of our men are once more in their own surroundings.

WONDER who was responsible for the following "Warning to the Public":

"The Committee of the Imperial War Exhibition and the Admiralty call special attention to the fact that the Photographic Section of the Exhibition, which opens at Burlington House next Monday, contains many photographs which are only allowed to be used for exhibition purposes, and in no circumstances can anybody be permitted to take photographs, or reproduce in any way, any of these exhibits. Attendants will be on duty to prevent either sketching or photographing.

Warning is given to the public not to bring cameras or sketching materials."

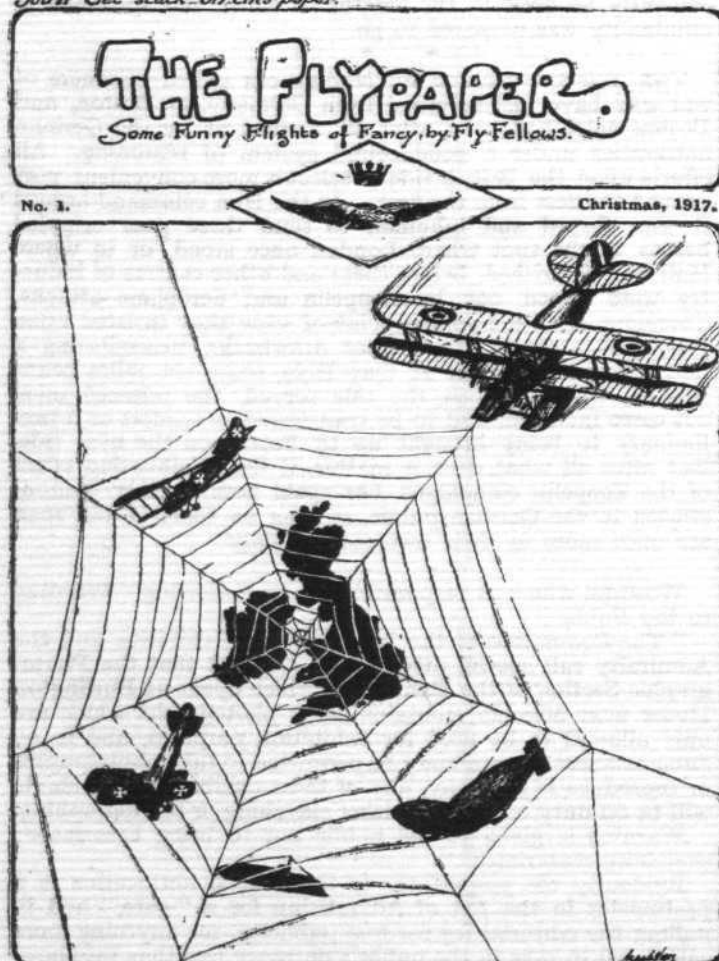
Evidently the perpetrator of this official notification is a pastmaster in the Art of Advertising for a "gate," and in pulling the editorial leg for free publicity, for anything more calculated to rake in the public's entrance fees than the above can hardly be imagined. To view things and obtain information that they mustn't speak about and disseminate,

should provide small talk amongst the millions of secret-hoarders for weeks.

A FLAW in the constitution of the new Air Council, according to the *British Medical Journal*, is that the Order contains no reference to an Air Medical Service. It is clear, our contemporary maintains, that such a service must at once be established, and it is sincerely to be hoped that the vacant seat on the Air Council may be filled by its Director-General. Part of the work of the Air Medical Service will be of the ordinary kind which falls to be performed by every military medical service, but much of it will be conditioned by the peculiar duties of an air force. A man who aspires to fly must be submitted to very strict physical examination by the Air Service medical officer before he is sent to be trained; he must be very carefully watched during his training to discover any latent weakness, and after he has been passed as a flyer constant supervision must be kept over the state of his general health, and especially over the condition of his nervous system, to ensure that the perfect adjustment between senses, brain, and muscles, which he must have possessed when he passed the flying tests, is maintained. Many accidents can be traced to a pilot going up when he was not thoroughly fit. Civil practitioners have hitherto had nothing to do with air problems, and physiologists very little. It is therefore incumbent on the Secretary of State for the Air to institute and encourage research into the special physiological and medical problems awaiting solution for the greater efficiency of his service and the saving of lives and equipment.

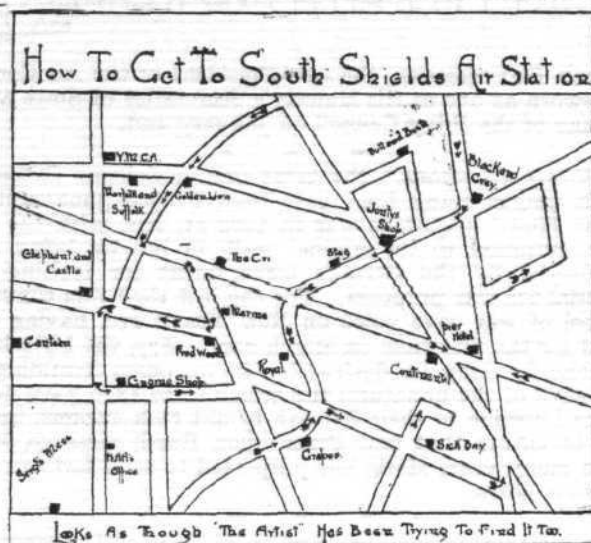
WHY the Gothas didn't come. Other things besides bad weather contrived to keep the Gothas away from us this holiday season. Here is one. A British airman in France one day while flying saw beneath him a German aerodrome, which he knew to be one of the headquarters of the "night hawks." It was apparently abandoned, but in the adjoining field was what looked like a number of cows. So that night seven daring R.F.C. youngsters went out, and in place of the cows they found 20 Gothas, bereft of the "horns," &c., they wore in the daytime, for their camouflage had been exceptionally clever. "Jerry" had removed the machines, guessing that the hangars would be bombed. A few "pills," and that German squadron did *not* come to London.—(*Daily Sketch*).

You'll Get stuck on this paper



The first page of the *Flypaper*.

THE number of Service magazines and aeronautical "House" organs is legion. Each in its own sphere must do a considerable amount of good in promoting that *esprit de corps* which helps along any body of men in constant close association. The latest—*The Flypaper*—to hand is from South Shields way. Several of the items in No. 1, from which we reproduce the front page design and a specimen of one of the humorous illustrations, succeed in their aim of



A suggestive Christmas puzzle from the *Flypaper*.

being instructive, and are, moreover, from the pens of practical officers in the Service, including an article on seaplanes by Flight Commander W. G. Sitwell, R.N., and a look ahead at the future of flying and the Flying Service by Flight Lieut. Goodwin. Local humour and colour necessarily attach to most of the editorial matter and drawings, but in *The Flypaper* there is a distinct attempt at getting outside the station to which the little publication specially appeals.

A HAVEN of rest of Sir Howard Frank's, who has been appointed Director-General of Lands for the Air Ministry, is the old Belle Tante lighthouse at Beachy Head. It is not the first time this unique "residence" has been intimately associated with aviation, as until his spirit took wing into the unknown from this old structure some years ago, Belle Tante was the recuperative spot where a highly valued devotee of aerial science, attached to "FLIGHT," threshed out many a problem of which the world has since reaped the matured benefit.

TEN YEARS AGO.

Excerpts from the "Auto." ("FLIGHT's" precursor and sister Journal) of December, 1907. "FLIGHT" was founded in 1908.

ANTOINETTE AEROPLANE.

The Antoinette aeroplane designed by Capt. Ferber has now been completed, and is about to be equipped with a 100 h.p. Antoinette engine.

ACCIDENT TO THE BLÉRIOT AEROPLANE.

M. Blériot has had a wonderfully narrow escape, and with the proverbial luck of aeronauts has come off scathless; his machine, however, has been very much broken up. The occurrence took place on the drill ground at Issy on December 18th. After running across the ground preparatory to a flight, the machine subsequently rose into the air to a height of about 9 ft., and had hardly gone more than a few yards when some of the steel wires snapped, thus allowing the outstretched wings to drop on to the ground. This caused the entire machine to turn a somersault, M. Blériot being forced to also take part in this very unpleasant diversion.

"NULLI SECUNDUS" REPAIRED.

Ever since the catastrophe at the Crystal Palace work has been pushed forward on the repair of the "Nulli Secundus," which is now once more in a condition to take the air. Profiting by past experience, a more powerful engine is to be installed, but at the present moment this has not yet arrived from France.

"VILLE DE PARIS" AGAINST THE WIND.

One of the most successful flights which the "Ville de Paris" has yet made was that carried out on Friday afternoon of last week, when the airship successfully battled against a wind which was estimated as being not less than 47 kiloms. an hour.

Personals

Casualties.

Lieutenant JOHN BELL, R.F.C., who died of wounds on December 27th at a casualty clearing station, was the son of the late John Bell and Mrs. Bell, of Geelong, Victoria, Australia.

Captain JAMES M'KEE, D.S.O., who has been killed in action, was the son of the late Mr. Samuel M'Kee, Parkville, Cyprus Park, Bloomfield.

Lieutenant EDRIC HURDMAN READ, Canadian Forestry Corps, attached R.F.C., who was killed on December 26th, aged 19, was the younger son of Mr. and Mrs. Charles E. Read, of Ottawa. He was educated at Ashbury College in that city, and was granted a commission in the Canadian Forestry Corps in April, 1916. He arrived in England in May of that year, and served with his unit in England until seconded for duty with the R.F.C. last April.

Lieutenant CONN SMYTHE, M.C., R.F.C., previously officially reported missing, believed killed, is known to be a prisoner in Germany, his father, Mr. A. E. S. Smythe, late of Belfast and now of Toronto, having received news to that effect.

Lieutenant WILLIAM MALCOLM DENHAM, R.F.C., who was killed on January 3rd through a flying accident in England, aged 18, was the only son of Mr. and Mrs. Frederic Denham, of Bedford.

LIEUTENANT CECIL OLCHER FEDDEN, Indian Army Reserve of Officers and R.F.C., was killed on January 7th, while making a flight from a home station. He was compelled by a storm to make a landing in the sea, and died of exposure before help could reach him. Lieutenant Fedden had served in Mesopotamia and on the Western front, and had been severely wounded in the arm. He was married only a few weeks ago to Shena, elder daughter of Lieutenant-Colonel Charles Fraser, R.A.M.C., of Elder House, Berwick.

Prisoner of War.

Captain G. B. CROLE, M.C., Royal Flying Corps, the well-known Oxford footballer and golfer, who was officially reported missing, is an unwounded prisoner of war in the hands of the Germans. The son of Mr. G. L. Crole, K.C., Clerk of Justiciary, Captain Crole was educated at Edinburgh Academy and University College, Oxford. When war broke out he obtained a commission in the 2nd Dragoon Guards, but later transferred to the Royal Flying Corps, and gained the Military Cross last September.

Married.

On December 20th, at the Consulate and the Embassy Church, Paris, Captain E. W. SETON COTTERILL, R. Fus.,

attached R.F.C., only son of Mr. and Mrs. Cotterill, Moorside, Dore, near Sheffield, was married to LALLIE, second daughter of Sir C. ARTHUR PEARSON, Bart.

On December 15th, at St. Peter's, Cranley Gardens, Captain L. L. MACLEAN, I.A. and R.F.C., elder son of the late Loudoun F. MacLean, C.I.E., and Mrs. MacLean, 9, Longfield Road, Ealing, was married to PHYLLIS AILEEN, eldest daughter of the late Lieutenant-Colonel G. M. MORRIS and Mrs. MORRIS, 98, Philbeach Gardens, Earl's Court.

On the 5th January, at St. Jude's, Mildmay Park, N., WILLIAM HENRY PEACOCK, R.F.C., was married to EMILY ETHEL, only daughter of Mr. and Mrs. FREDERICK JOHN JONES, 82, Highbury New Park, and 49, Mildmay Grove, N.

On January 2nd, at All Saints' Church, Child's Hill, by the Right Rev. the Lord Bishop of Willesden, assisted by the Vicar, the Rev. W. D. H. Petter, Captain G. NEVILLE MARTIN, Durham Light Infantry and R.F.C., only son of the late Mr. G. H. Martin and of Mrs. Martin, of Bedford, was married to ALDIS, the eldest daughter of Mr. and Mrs. C. J. BARRY, of "Ardlethen," Hampstead, N.W.

The marriage of Captain IAN MCALISTER MOFFATT-PENDER, Seaforth Highlanders and R.F.C., youngest son of Mr. and Mrs. Pender, Onich, Great Bookham, Surrey, and LORNA LEDLIE, younger daughter of the late WILLIAM SMITH, of Ravenswood, East St. Kilda, Melbourne, and Mrs. Smith, took place at the church of St. Mary Abbott's, Kensington, on December 27th.

To be Married.

The engagement is announced between Second Lieutenant CHRISTOPHER JOHN HALLWARD, R.F.C., youngest son of Mr. Reginald Hallward and Mrs. Hallward, of Woodlands Shorne, Gravesend, and ISABEL CUNLIFFE, only daughter of Mr. and Mrs. HERBERT HAMPTON, of Maida Vale, W.

The marriage arranged between Lieutenant J. JENSEN, R.F.C., and Miss GWYNIFRID B. PALMER will take place at the Parish Church, Bushey, Herts, on January 17th, at 2.30.

The marriage arranged between Captain HUMPHREY CLIFFORD LLOYD, M.C., 60th Rifles, attached R.F.C., only son of Colonel Wilford LLOYD, M.V.O., Royal Body Guard, and Mrs. LLOYD, and CONSTANCE, only daughter of Mr. and Mrs. JAMES HOPE LOUDON, Olantigh, Wye, will take place at the Wye Church, on January 16th, at 2.

A marriage has been arranged, and will shortly take place, between Lieutenant OLIVER BYERLEY WALTERS WILLS, M.C., R.F.C., eldest son of Mr. and Mrs. G. T. Wills, of Moorings, Sunningdale, Berks, and URSULA, second daughter of Mr. and Mrs. H. WILDON CARR, of 107, Church Street, Chelsea.



Where the Rainbow Ends.

THE Juvenile Lecture of the Aeronautical Society, on January 2nd, was a great success. Dr. A. P. Thurston proving a splendid lecturer, and his tales and stories were greatly enjoyed by the youngsters. Lieut.-Col. M. O'Gorman was in the chair, and the proceedings were illustrated by a number of cinematograph pictures shown by Dr. Maddick. Speaking of rainbows, Dr. Thurston said they ended on the top of every cloud. "When you are above the clouds you sometimes see the rainbow a complete and beautiful circle, sometimes in two circles, one outside the other, and wherever you go above the clouds a halo encircles the shadow of your own machine. I have charged this halo, like Don Quixote charging the windmill," said Dr. Thurston. "It grows smaller and smaller as you approach it and becomes a ball of fire. Then you float into the cold clammy mist forming the cloud, and you are where the rainbow ends."

Flying created a feeling akin to home-sickness, one that would not be satisfied except by another trip into the sky. One soon became accustomed to the noise of the aeroplane engine, but never to the tremendous rush of the air. It was usual for the observer to kick the pilot when he wanted to communicate with him, but on one occasion when he (Lieut. Thurston) was the observer his pilot was too far away to be kicked. Thereupon he tried a stick, but failed with that

also because he was not strong enough to prevent the wind from bending the stick aside. The blast bent the airman's nose, turned up his ears, and moved the skin on the top of his head. It was even said among flying men that one who had thoughtlessly kept his mouth open while facing the wind was unable to shut it for some time. There was one clear difference between an aeroplane and a seaplane. The former, if well piloted, left the earth and returned to it so smoothly that the men in it hardly felt the change; but in the case of a seaplane the buffeting which the boats received from the waves often gave a stinging to the feet of the men in the machine.

Type for type, the British machines flew faster, climbed more quickly, and manoeuvred with greater ease. But we wanted more and still more aeroplanes. They would prove the decisive factor in the war, and when peace returned they would change the habits of the people. Explaining an experiment in which a miniature Zeppelin was pursued and set on fire by a tiny aeroplane, the lecturer said that even if the Huns discovered a non-inflammable gas suitable for Zeppelins, our aeroplanes would still set those airships on fire. It might happen, even in present circumstances, that a Zeppelin, after receiving the fatal wound, would get 100 miles away before fire broke out, but it could not escape. We were on the right lines in air fighting, and had only to persevere.

TWO BRITISH "CRACK" PILOTS.

IN view of the reticence of the authorities with regard to the doings of British airmen, details given in the two following stories from the *Daily Mail* are very interesting:—

"Captain Philip Fletcher Fullard, D.S.O., M.C., aged 20, one of the British air 'stars' went fresh from school into an officers' training corps. He has flown in France for about six months, and during that time has brought down 42 enemy machines and three balloons.

"In a single day he brought down four German aeroplanes—his record day's 'bag.' On another occasion he and another airman brought down seven enemy machines before breakfast, Fullard accounting for three of them. Up to the middle of October the squadron to which he belongs had brought down 200 enemy machines, and their number now stands at about 250.

"The outstanding feature of Captain Fullard's record is the few casualties his 'flight' has suffered. For three months he worked with the same flight of six pilots without a casualty among them, and in that time they brought down more enemy machines than any other flight in France.

"He had a narrow escape when fighting a German two-seater, his goggles being shot away from his eyes. The Verrey lights in his machine caught fire and set the woodwork of the aeroplane alight, but he managed to get his burning machine back to the British lines. Captain Fullard respects the fighting capacity of the Boche airmen, and considers they are good in a tight corner. After emerging scatheless from many a tight corner in air fights he broke his leg six weeks ago while playing football at an aerodrome.

"Captain Fullard is the son of the late Mr. Thomas Fletcher Fullard, of Hatfield, and Mrs. Fullard, who now lives at Rugby. He was educated at Norwich Grammar School, and in 1905 joined the Inns of Court Officers' Training Corps. Passing high in his examination, he was offered a commission in the Royal Irish Fusiliers, but was selected as suitable for flying work, and joined the R.F.C. He went to Upavon, and was given a post as instructor there. In April, 1917, he was sent to the front. He has gained the D.S.O. and the Military Cross, with a bar."

"Captain James Thomas Byford McCudden, M.C., has brought down 37 machines, and is still flying in France, being the leader of the squadron that the *Mail's* correspondent, Mr. Harold Ashton, spoke of on New Year's Day as having accounted for 99 Huns. Captain McCudden went out as an air-mechanic with the original British Expeditionary Force. In the stress of the German rush through Belgium, Air-Mechanic McCudden, having had some experience in the

air, was pressed into service at Mons as an observer, and he was a member of a small reconnaissance party that gave information of the Hun effort which led to the historic fighting retreat.

"McCudden went all through that stage of the war. Promoted officially to be an observer, he won renown for his handling of the guns in several stiff fights, and in the first year of the war as a non-commissioned officer he was awarded the Croix de Guerre and the Military Medal. His pilot—a major, since killed—said on more than one occasion: 'But for McCudden we should never have got our machine back safely. He fought with real genius.'

"Since he became a pilot in charge of a single-seater scout, in which he controls the gun as well as the aeroplane, McCudden has had well over 100 fights and some wonderful escapes without sustaining a scratch. He had three duels with Immelmann, the crack German airman, and on each occasion the fight was broken off before either could claim a decisive advantage. He has paid some generous tributes to Immelmann.

"Captain McCudden's father, Mr. W. H. McCudden, long a warrant officer in the Royal Engineers, was born at Carlow, Ireland—a typical Irishman, whose father and grandfather had been soldiers before him. The young airman's mother, whose maiden name of Byford he bears, comes of Scottish fighting stock. Both her father and grandfather were in the Royal Marines.

"McCudden of the Air Service will be 23 next March. He was born in barracks at Chatham, educated at the garrison school there, and has lived most of his life in barracks. Like his father and mother he is not tall—his height is 5 ft. 7 ins.—but his slim figure is athletic and his boyishly pinky-white complexion gives a touch of delicacy to a countenance that is full of character. His elder brother, Flight-Sergeant W. T. J. McCudden, was killed while flying at Gosport in May, 1915. He has two other brothers, one of whom, 2nd Lieutenant J. Anthony McCudden, R.F.C., has already brought down several German machines in France. The youngest member of the family, Maurice Vincent McCudden, aged 16, is already in the R.F.C., and pining to be a pilot.

"His father is now chief clerk in a detachment of the A.S.C., and his mother lives at Kingston-on-Thames. 'He tells us hardly anything in his letters about what he has done,' said his mother to a *Daily Mail* representative on Saturday. 'Sometimes he just puts in a line, "Brought down two more Huns to-day, mum," but nothing more. A few weeks ago he wrote, "Hear I've been recommended for the D.S.O.," but even then he did not tell us what it was for.'

THE IMPERIAL WAR EXHIBITION.

It would be difficult to imagine anything more fascinating or better calculated to open one's eyes to the enormous extent and variety of the machinery required for conducting a great war than the Imperial War Exhibition which was opened at Burlington House (Royal Academy), Piccadilly, by Field-Marshal H.R.H. The Duke of Connaught, K.G., on Monday last (January 7th). There is scarcely a phase of warfare, whether on land, at sea, under the sea, or in the air, which is not represented by the weapons, instruments, machinery, or craft full size or model, appertaining to it. In addition to what might be termed exhibits in the solid, the walls of the various galleries are covered with excellent pictures representing incidents, humorous and sad, of the war on all fronts.

Of particular interest to "FLIGHT" readers is, of course, the section dealing with aerial warfare. This is very well represented, two full-size machines—a captured Fokker monoplane and a Sopwith triplane—being shown. In addition there are exhibited a number of aero engines—British as well as German—with diagrams showing how an interval combustion engine works. Of aircraft accessories there is a wealth of machine guns, bombs, instruments, cameras used for aerial photography, &c., while suspended under the dome of the Central Hall is a Calthrop's "Guardian Angel" parachute. The walls of this room are decorated with propellers

(some showing the earlier type with deflector plates used before the synchronised machine gun came into general use), Zeppelin and Gotha relics, machine guns, &c. On the walls of the room of which the Sopwith triplane forms the central exhibit are hung some very interesting and instructive pictures showing some of the many phases of aerial warfare, over land as well as over the sea.

Against one of the walls and slung on thin steel wires in very realistic attitudes are a number of scale models of well-known machines such as Sopwith scouts, Schneider type Sopwiths, Bristol scouts, Wight seaplanes, Short seaplanes and Avro long-distance bombers.

Two rooms are devoted to articles made chiefly by women, and include aeroplane parts in metal and wood, and a large series of aero engine parts, chiefly of the Clerget—of which a complete engine is shown—but also of numerous other well-known aero engines.

It would indeed be futile to attempt to give a complete catalogue of all the interesting exhibits. To appreciate them one must see them, and we would earnestly advise all of our readers who can possibly manage to do so, to pay a visit to the exhibition. The price of admission is 1s.—so low as to be within the means of everybody, and the whole of the proceeds are to be devoted to the British Red Cross Society and Order of St. John.

Further Opportunities for Women Drivers.

MORE women motor transport drivers are wanted in the Royal Flying Corps. Applications should be made to The Commandant, Women's Legion, Motor Transport Section, 15A, Pall Mall East, S.W.1.

British Aeroplane in Holland.

FROM Amsterdam it is reported that a British biplane landed on January 3rd, at Biervliet, near the Dutch frontier

wire fence in Zeeland, and the officer and two men have been interned. The officer, whose hands and legs were so frozen that he was unable to control the machine, has been admitted to hospital.

German Aerodrome Damaged.

It is stated by the *Telegraaf* that the big new German aviation camp near Oostacker, on the Ghent-Lokeren-Antwerp line, has been greatly damaged in aerial attacks.



A GOOD citizen, it becomes me to conform with the rules. Indeed, it would appear futile to object and to struggle against conformity. To rules and regulations I am becoming apathetic; we are all becoming apathetic. Before the war there were rules: I conformed with them. The outstretched arms of the liftman was sufficient to shunt me into the next lift, even though the first was but half full and he had passed my friend. I always passed right across please, noticed that no smoking was allowed, was beware of pickpockets—male and female—allowed passengers off first. Such things were of the Tube, following on the days when one paid twopence, dropped the ticket into a bin, and went anywhere. And if I liked it not there were the 'buses. They would stop for me did I but point at the driver with my umbrella. Possibly it is now against the rules for a 'bus to stop to pick up passengers. Anyway I am become apathetic; I put on my pipe and walk. There is no rule against smoking in the street—yet.

My lunch in the City to-day was vegetarian, my dinner this evening was jointless. They have just sent a cup of something hot through to my writing room. It looks like tea, smells like coffee, might be anything and brewed from anything. It has a flavour all its own, and may be an infusion of the ashes from a burned out boot factory. Yet I should not wonder did it cost many good shillings the pound.

And because I am become apathetic I do not grumble. I know that there are those in high places who are looking after my welfare, who are doing their best to do for me.

The last business of the food is the business of the Food Controller, who just now is so very busy making rules and speeches that he has little time to control. Little doubt in my mind but that the Central Food Control Office, wherever it may be, is a grand building, with lifts to hoist the many staff to the many corridors. That there is much coming and going from room to room. That those whose duty it is to awaken the corridorial echoes by their incessant footfall are doing that duty faithfully. That there are sufficient young ladies (doing it for patriotic pocket-money) to make tea for all. I know not where this central office may be. I am become apathetic and cannot keep up with all the latest commandeering of public buildings for Government offices. I do know, however, that local Food Control offices have sprung up in all districts. I saw one on Saturday afternoon last when all the butchers were closed owing to food control. This control office was closed also, it being Saturday afternoon when wars do not matter, and a man had pitched his stall in close proximity and was selling rabbits to poor people at 5s. each because the butchers had no meat and people, even poor ones, must live. English wild rabbits, bred and born in this country, provisions that do not have to be carried overseas, rabbits that used to be retailed at

6½d. Possibly if this were whispered to the great and pompous they would be apathetic as I am.

No doubt about it, we are under the spell of officialdom, whose business it is to make rules and regulations, whose outward and visible sign of existence is the opening of new offices, the roping into the net of public buildings.

Wherefore the British Museum has fallen from its high estate as the home of many of the most wonderful and precious things in the whole world, and it is something only a little less than certain that it is to become a new home for the Air Board.

I cannot grant to the Hun much in the matter of sympathetic feeling for anything that he has not a direct interest in, but it is possible, just barely possible, that even he may have some little regard for the past history of the world he is so desperately anxious to govern, and that it is possible, just barely possible, that he would not deliberately order his aeroplanes to drop their eggs on a world's treasure house, to deliberately destroy records of history passed these many thousands of years.

I know little of history, and less of the constituent parts of a Hun, mental, moral, or spiritual, but perhaps even he has some little respect for past history. Possibly a nomadic race have no relics of the past. A warlike race with no fixed place of abode, a wandering people driving their own cattle and as many of other people's as they could rake in on the journey, from place to place to feed and thrive on other people's pastures, can have had little but their cattle-staves and their weapons.

Yet could the shield or weapon of Attila, the first Hun to lead his people from Northern Asia in the fifth century, so making it possible for William to happen, be found, I venture that even the modern Hun with all his frightfulness would have some respect for those relics and their housing.

But not so with enlightened England. The British Museum has caught the eye of the Government house agent. Perhaps wandering that way after lunch he stumbled upon it. Here was a big building apparently shut up and doing nothing. A walk round the side streets with a view to guessing its interior roominess (I cannot suppose he had ever been inside), a guess at the number of people it would take to fill it, a conviction that he was capable of the job of finding them, and the British Museum becomes a Government office.

But I am become apathetic. There is a picture of Mr. Lloyd George formed in the figurement of my bedroom curtains that I view every morning from my bed, but it does not worry me; I may just as well start the day under Government supervision and try to remember its rules.

Besides, in my curtain picture the Prime Minister is smiling; so we must also keep smiling and hope for the best.

The British Air Services

"PER ARDUA AD ASTRA"

UNDER this heading are published each week the official announcements of appointments and promotions affecting the Royal Naval Air Service and the Royal Flying Corps (Military Wing) and Central Flying School. These notices are not duplicated. By way of instance, when an appointment to the Royal Naval Air Service is announced by the Admiralty it is published forthwith, but subsequently, when it appears in the LONDON GAZETTE, it is not repeated in this column.

Royal Naval Air Service.

The following Lieut. has been promoted to rank of Lieut.-Comdr.:—D. A. Oliver, D.S.O. (Temp. Wing Comdr.).

Admiralty, December 31st.

Admiralty, January 1st.

Temp. Lieut. Comdrs., R.N.V.R., to be Temp. Comdrs., R.N.V.R.:—P. H. Edwards, L. H. Strain, D.S.C. (acting Comdr., R.N.V.R.), F. S. Tilling, T. A. Monckton, R. W. Hogarth.

Temp. Lieuts., R.N.V.R., to be Temp. Lieut.-Comdrs., R.N.V.R.:—Viscount Maidstone, T. B. Lloyd, F. Atkinson (acting Lieut.-Comdr.), J. Arthur, R. F. Le Bailly, O. G. G. Villiers, V. C. Richmond, R. B. Berkeley, S. P. V. Phillips, S. M. Cleverley, C. Suckling, H. Dodd, B. H. N. H. Hamilton, J. W. Collingson, R. J. P. Briggs, C. W. Nutting, D.S.C., J. B. Vernon, K. Secretan, R. L. Alderson, O. H. Powell, C. F. Abell, J. W. Lintott, R. V. Mostyn, E. Dalziel, C. J. Price, Lord Clifton, M. Marsden, J. A. Williams, W. C. Power, E. Darrell-Huskinson, F. R. E. Davies (acting Lieut.-Comdr.), J. R. Potter, A. R. Layard, J. K. Wells, W. J. Ployblank, F. C. Chambers, C. A. L. Harrison, R. M. S. Veal, A. C. Wade, J. C. M. Lowe, T. R. H. Garrett, J. P. Elsdon, T. B. Meyer, S. J. V. Fill, J. G. T. Crawford, T. L. Oliver, J. B. Handley-Seymour, A. E. Pettingell, W. H. T. Rampling-Rose, D. Illingworth, P. B. J. Murrell, T. S. Price, J. G. Bayes, the Hon. W. T. Whiteley, W. J. Fernie, W. H. Reid, H. I. Dear, N. Sladden, A. J. Currie.

Temp. Sub-Lieuts., R.N.V.R., to be Temp. Lieuts., R.N.V.R.:—T. J. Hamp, A. E. Courage, E. A. Hoghton, E. D. H. Robinson, H. W. Bamber, J. H. Hagon, F. A. Barton, S. J. Green, B. G. Ludlow, T. H. Harkness, R. Champness, C. S. Goddard, S. J. W. Baldwin, W. B. Sinclair, W. J. Salaman, W. H. Rodd, C. Hayes, C. R. E. Pope, W. H. B. Sandes, T. F. Gillespie, F. K. Wells, E. S. Davis, C. A. Crocker, R. G. G. Maund, T. Holmes, L. E. Sawyer, D. F. Lucking.

Warrant Officers, II, to be Warrant Officers, I:—T. C. James, F. E. Finzel, A. E. Hunn, H. G. Cooper, S. C. Tucker, J. H. Ormsby (Temp. Lieut., R.N.V.R.), A. T. E. Witt, A. Lanman, F. E. Bishop, H. McGrane, W. G. J. Wardle (Temp. Lieut., R.N.V.R.), F. S. Officer.

Warrant Officers (1st Grade).—F. J. Hooper, promoted to Observer Lieut. (permanent), seniority Jan. 1st.

Messrs. A. D. Jack and J. A. Halle (Temp.) have been promoted to Wt. Officers (11), seniority October 1st.

The following have been entered as Proby. Flight Officers (Temp.):—J. B. Badgley, H. A. G. Baker, A. Blyton-Beesley, D. P. Davies, R. C. Hockey, R. L. Johnston, (Lieut., R.F.A. temp.), A. Ross, C. H. O. Stretell, A. B. Summers, H. M. Teetzel, F. J. Welch, E. Yates, and D. G. Wassell.

Messrs. H. Cartwright and R. L. Stevenson both entered as Proby. Observer Officers (Temp.), seniority respectively September 9th and 15th.

Admiralty, January 2nd.

Probationary Flight Officers.—W. F. Jones (Temp. appointment as Proby. Flight Officer terminated) and S. King, both entered as Proby. Observer Officers, seniority respectively Oct 7th and Jan. 1st.

Mr. R. G. G. Harley granted temp. commission as Lieut. (R.N.V.R.), seniority Dec. 31st.

Admiralty, January 3rd.

The following temporary entries have been made, seniority as stated:—Prob. Flight Officers.—G. E. A. Lewis; Jan. 7th. S. G. Punnett; Jan. 14th. Prob. Observer Officer.—A. V. Gilbert; Dec. 18th.

Mr. H. A. Adams granted temp. commission as Lieut. (R.N.V.R.), seniority January 2nd.

Admiralty, January 4th.

The following Proby. Observer Officers (Temp.) have been promoted to rank of Observer Sub-Lieut. (Temp.):—F. A. Whippley, S. C. Howes, F. R. Allen, E. A. Sawyer, P. E. Lindner, J. Hodgson, and C. B. Collins.

Probationary Flight Officer (Temporary).—R. C. Emett, entered as Prob. Obsvr. Officer (Temp.), seniority Sept. 16th.

Lieutenant (R.N.V.R., Temporary).—H. W. Eades entered as Proby. Obsvr. Officer (Temp.), seniority January 3rd.

Admiralty, January 5th.

The undermentioned have been entered as Proby. Flight Officers (Temp.), seniority as stated.—H. W. Halford; Dec. 30th. R. E. Brooks and R. N. Richards, both Jan. 14th.

Mr. R. Beavitt, entered as Prob. Obsvr. Officer (Temp.), seniority Dec. 29th.

Temp. Comms. (R.N.V.R.) have been granted to the under-mentioned, seniority as stated:—Lieuts.—H. M. Winstanley; Dec. 28th. L. P. D. Cooper, Jan. 1st; and H. W. K. Jennings; Jan. 7th. Sub-Lieuts.—H. C. Brazier, B. Rook and S. C. Spink, all Jan. 7th, and the Hon. F. S. G. Calthorpe; Jan. 10th.

Admiralty, January 7th.

Wing Commander.—G. Gordon, D.S.O., to Ark Royal (undated).
Lieutenant, R.N.V.R. (Temp.).—J. E. Arrol-Hunter, to President II., add., for R.N.A.S., Constructional Corps; Jan. 5th.

Prob. Flight Officer (Temp.).—C. H. Whitehouse granted temp. commission as Sub-Lieut., seniority Jan. 5th.

The undermentioned Prob. Flight Officers (Temp.) have been promoted to Flight Sub-Lieuts. (Temp.), with original seniority:—O. H. Chilton, R. W. Kerr, W. E. Kent, W. G. Gwatkin, A. G. Wheeler, H. W. Riding, T. H. Rochard, G. S. Ranshaw, R. A. Maddock, L. H. Thomas, T. S. Brazenbale, V. A. Collis, G. T. Steeves, B. Brewer, F. J. Islip, K. H. Carr, M. C. Purvis, G. L. Thorman, T. L. Palmer, N. W. Jackson, A. C. Aspinall-Howe, L. H. Pearson, W. A. C. Dicketts, G. Rose, J. H. T. Carr, E. C. Usher, F. C. Stovin, R. C. Maxwell, F. Jardine, H. H. Crump, J. A. F. Sinclair.

The following have been entered as Prob. Flight Officers (Temp.), seniority as stated:—J. G. McN. Davidson, Nov. 21st, 1917; J. C. Buckley and M. F. R. Plowman, Jan. 4th.

Mr. S. P. Dobbs granted temp. commission as Lieut. (R.N.V.R.), seniority, Jan. 4th.

Royal Flying Corps (Military Wing).

London Gazette Supplement, January 1st.

A.G.'s and O.M.G.'s Staff.

D.A.A.G.—Capt. (Temp. Major) C. S. McNab, Cam'n Highrs., from an Asst. Comdt. (graded as a Park Comdr.), R.F.C. Schools of Mil. Aeronautics, and to relinquish his temp. rank; Nov. 22nd, 1917.

D.A.Q.M.G.—Capt. H. A. P. Disney, Camb. R., T.F., from a Dep. Assist. Dir. at the War Office; Nov. 22nd, 1917.

The following appointments are made:—

Staff Officer, 2nd Class (graded as a Brigade-Major).—Capt. H. N. Walker, M.C., Welsh R.; Nov. 19th, 1917.

Staff Officer, 3rd Class (graded as a Staff Captain).—Lieut. (Temp. Capt.) H. French, W. York R., S.R., from a Staff Capt., and to retain his temp. rank while so employed; Dec. 2nd, 1917.

Flight Commanders.—Temp. Lieut. J. C. O. Dickson, Gen. List, from a Flyg. Officer, and to be Temp. Capt. while so employed; Dec. 1st, 1917. Capt. J. C. L. Barnett, Oxf. and Bucks L.I. (T.F.), from a Flying Officer; Dec. 12th, 1917. From Flying Officers, and to be Temp. Capts. while so employed:—Lieut. R. F. S. Manduit, D. Gds., 2nd Lieut. (Temp. Lieut.) J. S. Smith. N. Staff. R. S.R.

Flying Officers.—Lieut. A. R. Oliver, Can. Exped. Force; Temp. Lieut. G. L. Graham, Gen. List, from a Flying Officer (Ob.), seniority from Oct. 13th, 1916; 2nd Lieut. P. J. Nolan, R.A., from a Flying Officer (Ob.), seniority from Feb. 3rd, 1917; 2nd Lieut. W. Porter, R.F.A., S.R.; Dec. 5th, 1917. Temp. 2nd Lieut. T. J. P. York, attd. Rif. Brig., and to be transfd. to R.F.C., Gen. List; Temp. 2nd Lieut. W. M. Burfoot, attd. Dorset R., and to be transfd. to R.F.C., Gen. List; Dec. 6th, 1917. Temp. 2nd Lieuts. (on prob.), Gen. List, and to be confirmed in their rank:—W. S. Robinson, V. S. Parker; Aug. 7th, 1917. H. C. M. Orpen; Sept. 26th, 1917. G. Norton; Oct. 15th, 1917. C. Parry; Oct. 28th, 1917. E. C. Hoy; Nov. 25th, 1917. E. C. Willis; Nov. 26th, 1917. J. A. A. Ferguson; Nov. 28th, 1917. B. Benzie, S. T. Proctor; Nov. 29th, 1917. J. P. Seabrook, N. B. Wells, J. A. Wagner, R. H. Davis, L. Nicholson, H. D. West, R. Sherwood; Nov. 30th, 1917. C. G. H. Smith, H. F. Proctor; Dec. 1st, 1917. N. F. Spurr; Dec. 3rd, 1917. O. O'Connor; Dec. 4th, 1917. A. N. Pitchford, E. W. Pickford, W. G. Hargrave, D. Christie, C. L. M. Burton, R. C. Stokes, D. P. Murmann, A. Platt, F. E. Upton-Smith; Dec. 5th, 1917. W. T. Bassett, J. R. Montgomery, K. W. Switzer; Dec. 6th, 1917. J. G. Mair; Dec. 7th, 1917. A. McKean; Dec. 8th, 1917. The initials of Temp. 2nd Lieut. H. W. Gardner, Gen. List, are as now described, and not as in the Gazette of Nov. 23rd, 1917.

Flying Officer (Observer).—Temp. Lieut. D. W. McLeod, Gord. Highrs., and to be transfd. to R.F.C., Gen. List; May 22nd, 1917, seniority from Feb. 27th, 1917.

Assistant Instructors in Gunnery.—Graded as an Equipment Officer, 2nd Class: Temp. Lieut. W. L. Hill, Gen. List, from an Assistant Instr. in Gunnery (graded as an Equipment Officer, 3rd Class, Dec. 1st, 1917). Graded as an Equipment Officer, 2nd Class: Temp. Lieut. W. F. Baker, Glouc. R., and to be transfd. to R.F.C., Gen. List; Oct. 1st, 1917.

Balloon Company Commanders (graded as Flight Commanders).—From Balloon Comds. (graded as Balloon Officers), and to be Temp. Capts. whilst so employed:—Temp. 2nd Lieut. (Temp. Lieut.) W. G. Dreschfeld, Gen. List; Lieut. W. F. N. Forrest, R.F.A., S.R.; Dec. 4th, 1917.

Balloon Commanders (graded as Balloon Officers).—From Balloon Officers.—Lieut. J. P. Nickalls, R.A.; Oct. 2nd, 1917. Lieut. L. L. Falkn, Middx. R. (T.F.); Temp. Lieut. J. C. A. Cameron, Gen. List; Temp. 2nd Lieut. P. Haworth, Gen. List, and to be Temp. Lieut. whilst so employed; Dec. 4th, 1917.

Adjutant.—Qmrr. and Hon. Capt. S. H. Cleall, R. Ir. Fus., from an Equipment Officer, 3rd Cl.; Sept. 20th, 1917.

Equipment Officers, 1st Class.—Lieut. J. Brown, S.R., from the 2nd Cl., and to be Temp. Capt. whilst so employed; Sept. 15th, 1916. 2nd Cl.—and to be Temp. Lieuts. whilst so employed:—Temp. 2nd Lieut. C. W. Hogg, Gen. List, from a special appointment (graded as an Equipment Officer, 3rd Cl.); Temp. 2nd Lieut. H. Lawson, Gen. List, from the 3rd Cl.; Nov. 19th, 1917. Lieut. G. R. Nicholson, S.R., from the 3rd Cl.; Dec. 8th, 1917. 3rd Cl.—2nd Lieut. (on prob.) J. W. Gardner, S.R.; Oct. 10th, 1917. Temp. Lieut. R. V. J. S. Hogan, E. Lan. R., and to be transfd. to R.F.C. Gen. List; Nov. 16th, 1917. Temp. 2nd Lieut. R. Law, Durh. L.I., and to be transfd. to R.F.C. Gen. List; Dec. 2nd, 1917. Temp. 2nd Lieuts. (on prob.), Gen. List, and to be confirmed in their rank:—D. W. Dean; Oct. 13th, 1917. O. J. W. Napier; Nov. 3rd, 1917. J. E. Liddiatt; Nov. 4th, 1917. F. L. Roberts; Nov. 28th, 1917. H. B. Hawker; Nov. 29th, 1917. W. G. Webber; Nov. 30th, 1917. S. Marks; Dec. 2nd, 1917.

Schools of Instruction, Schools of Military Aeronautics.

The appointments of 2nd Lieut (Temp. Capt.) S. McClure, N. Staff. R., S.R., and Temp. Qmrr. and Hon. Lieut. (Temp. Lieut.) H. C. Gaze, R. Fus., should be under the above schools, and not as in the Gazette of Aug. 20th, 1917.

Assistant Instructor (graded as an Equipment Officer, 2nd Class).—The appointment of Lieut. G. Curgenven, Yeo. (T.F.), notified in the Gazette of Nov. 27th, 1917, is antedated to July 24th, 1917.

Equipment Officers' School of Instruction.

Assistant Instructor (graded as an Equipment Officer, 2nd Class).—Lieut. F. S. Smith, S.R., from an Asst. Instr. (graded as an Equipment Officer, 2nd Cl.), Schools of Mil. Aeronautics; Oct. 27th, 1917.

General List.—To be Temp. 2nd Lieuts. (on prob.):—J. H. Thompson, C. E. Wilnot, G. D. Tod, W. J. Walker, G. A. Whately, D. J. Waterous, W. S. G. Kidder, W. MacK. Thomson, J. D. Thomas, C. D. Taylor, C. E. Lacoste, I. Powers, H. B. Turner, J. D. G. Brendel, H. B. Bradley, T. G. Blakeley, W. H. Barlow, H. A. Armstrong, C. M. Holbrook, D. L. Hobson, L. W. Heseltine, E. D. MacFarlane, T. Longman, A. L. Huber, R. M. J. Bate, C. L. Cumming, G. C. Draper, K. R. Unger, J. Speaks, G. C. W. Sutcliffe, E. F. Stein, R. B. Smith, T. H. Sharples, E. P. Graves, B. N. Durant, A. G. Taylor, E. G. Tart, F. C. Tarbutt, E. J. Jacques, L. L. Brennan, H. M. Brown, H. C. Senior, C. W. Peckham, V. R. Pauline, N. E. Ohman, C. Mackenzie, A. W. McDonald, A. L. McLaren, J. P. Murray, E. G. S. Mortimer, W. P. Lancaster, J. T. Kirkland, N. D. K. Kennedy, G. A. Kennedy, C. Lankin, M. Leed, P. G. Lewis, R. G. Lye, E. G. R. Maillet, J. I. Maitland, P. R. Moore, I. A. Peers, B. R. Perry, G. F. Pfeifer, C. S. Johnson, P. B. Holgate, D. W. Hughes, A. T. Iaccaci, P. T. Iaccaci, T. F. Campbell, A. H. Chisholm, C. C. Conover, W. W. Chreiman, C. A. Cryslar, W. C. G. Geraghty, E. D. Gordon, A. W. Greene, J. S. Griffith, R. D. Hamilton, P. D. P. Hamilton, S. V. V. Hiscot; Nov. 1st, 1917. Cdt. M. P. Fraser, from R.A.; Nov. 24th, 1917. E. L. Hoffman; Dec. 3rd, 1917.

Cadets to be Temporary 2nd Lieutenants (on Probation).—J. Aitken, S. E. Alexander, G. F. Anderson, G. Bannerman, J. M. Bannerman, R. T. Bark. W. F. Bates, J. L. Batstone, P. C. Bayley, G. L. Bell, A. Bennett, S. Bennett, W. O. Bennett, C. R. Berdinner, E. R. A. Biggs, J. W. Birkenshaw, H. E. Bray, E. E. Bricknell, F. A. Brock, E. A. Burbidge, K. D. Butler, J. Cameron, E. L. Caprol, F. Cawley, J. B. Chamberlin, P. Chauncy, A. E. Chittenden, W. G. Clarke, E. W. Cockcroft, J. Cockledge, H. P. Crabb, C. A. Crichton, T. Cunliffe, A. K. Dawson, S. J. Durnody, J. C. Deremo, C. S. Dunbar, F. C. Duchesne, H. S. Davidson, R. F. J. Doole, L. Dexter, A. G. Dobrashian, J. H. Dickson, L. K. Davidson, H. I. Denison, G. H. Enderby, H. A. Edwards, R. Y. Eccles, J. A. Esslemont, G. M. Fossick, F. Findlay, H. L. Godfrey, I. O. Gaze, H. G. Goddard, R. E. Goodfellow, W. S. Greasley, G. R. St. C. Gwynne-Timothy, C. G. Haigh, W. E. Hall, L. S. Harvey, L. C. Hawkins, S. J. Hill, S. A. Hipple, T. G. Hobbs,

F. E. Hobson, E. Holder, C. G. Holmes, J. C. H. Holmes, N. Hobroyde, J. S. Hughson, E. O. Humphries, J. Huxon, R. W. Hyde, K. G. Ibbison, D. M. Jenkins, R. Jones, O. V. Juddins, J. Kelly, E. A. Kenny, E. A. W. Kent, J. King, W. Kinghorn, W. R. Leach, J. C. Lawrence, R. L. Lawson, J. C. Lewis, J. G. Liddell, C. F. J. Lisle, J. E. H. Littlewood, J. MacIntyre, A. Mackie, J. H. Macpherson, A. W. Mann, J. A. R. Mason, S. J. Mason, N. M. McDougall, A. R. McFarlan, J. J. McNamara, T. R. Michelson, A. F. Millar, E. E. A. Mills, R. E. M. Milne, H. E. Minton, L. S. Morck, T. D'A. Nassau, H. Nattrass, A. J. Newnham, H. E. Norman, J. Oakes, W. Ormerod, S. J. Osborne, H. H. Parker, A. Paget, L. H. Pallister, H. Parsons, F. J. Pegg, B. G. Pool, G. V. Raymond, J. K. Reid, G. E. Richmond, R. H. Rickards, L. H. Ridley, F. V. Riley, H. J. Roberts, H. A. Robinson, H. H. Rofo, G. Rogerson, D. Rose, J. T. Rose, C. R. Roushorne, W. R. Rudall, W. S. Rycroft, D. Stevenson, W. F. Stevens, C. M. Stone, M. Saynor, S. P. Seddon, J. A. Seidon, C. E. Smith, F. L. Smith, J. B. Smith, S. G. T. Spear, J. C. Stone, A. G. M. Strouger, E. M. Sutton, C. Sidebottom, L. Sabine, A. F. Sanders, J. Satterthwaite, J. Scott, G. E. Secker, C. J. Shapley, A. Sharples, J. F. Shaw, J. E. B. Skinner, I. C. Slater, R. W. F. Smee, A. Sme-thurst, J. D. Smithie, A. W. Southall, L. Springett, T. M. Steele, R. E. Stevens, H. K. Swales, B. Tamiriantz, J. Town, M. A. Toomey, W. D. Tye, H. Thomas, R. Tickle, S. T. Tipper, H. Townley, A. V. Trimble, C. E. Turner, P. Turner, D. H. Tyler, J. B. Waddington, H. Walker, H. B. Walker, A. P. Wallace, H. Walmsley, T. T. Warriner, H. H. Watson, J. E. Watts, F. J. Whitelaw, E. Whitfield, F. J. Wilcock, F. Wilde, W. Wilkes, A. B. Wilkinson, J. Wilkinson, L. Wilkinson, C. H. Wilson, C. Wilson, A. T. Wiltshire, H. Woodcock, E. P. Woodman, J. H. Young; Dec. 20th, 1917.

Supplementary to Regular Corps.—2nd Lieut. (on prob.) J. W. Gardner is confirmed in his rank.

London Gazette Supplement, January 2nd.

Attached to Headquarters Units.

Staff Captains.—Temp. 2nd Lieut. (Temp. Lieut.) J. McG. Glen. R. Scots, from a Flying Officer (Ob.), and to be Temp. Capt. whilst so employed; Nov. 27th, 1917. Date of resignation of his appointment and temp commission by Major E. W. Maples is Nov. 13th, 1917, and not as in *Gazette* of Dec. 14th, 1917.

The following appointments are made:—

Staff Officer, 2nd Class (graded as a Brigade-Major).—Capt. O. T. Boyd, M.C., Ind. Army (Dec. 2nd, 1917).

Squadron Commander.—Lieut. (Temp. Capt.) R. J. Lowcock, D.S.O., M.C., Notts and Derby R., from a Flight Comdr., and to be Temp. Major whilst so employed; Nov. 16th, 1917.

Flight Commanders.—From Flying Officers and to be Temp. Capt. whilst so employed:—Lieut. F. H. E. Reeve, North'd. Fus. (T.F.); Lieut. T. J. C. Martyn, Lond. R. (T.F.) (Dec. 10th, 1917). Temp. 2nd Lieut. (Temp. Lieut.) H. T. O. Windsor, Gen. List; Dec. 11th, 1917. Temp. Capt. W. B. Tisdall, Gen. List; Dec. 14th, 1917. 2nd Lieut. (Temp. Lieut.) A. M. Swyny, R. Ir. R., S.R., and to be Temp. Capt. whilst so employed; Dec. 17th, 1917.

Flying Officers.—Lieut. N. N. Coope, N. Lan. R. (T.F.), from a Flying Officer (Ob.); Dec. 1st, 1917, seniority from Feb. 23rd, 1917. Temp. 2nd Lieut. (Temp. Lieut.) G. N. Blennerhassett, M.C., R. Ir. Fus., S.R., from a Flying Officer (Ob.), seniority from Dec. 31st, 1916. 2nd Lieut. M. H. G. Liddell, Sco. Rif. (T.F.), and to be 2nd Lieut. (on prob.) T. R. Bloomfield, S.R.; Temp. 2nd Lieut. P. G. Matthews, attd. Yorks. L.I., and to be transd. to R.F.C., Gen. List; Dec. 3rd, 1917. Lieut. R. D. Baker, Canadian Exped. Force; Dec. 4th, 1917. Temp. 2nd Lieut. R. L. Truelove, Tank Corps, and to be transd. to R.F.C., Gen. List; Dec. 6th, 1917. Lieut. E. A. Chapman, 1st Cen. Ontario R., Canadian Exped. Force; Dec. 7th, 1917. Temp. 2nd Lieut. (on prob.), Gen. List, and to be confirmed in their rank:—J. N. L. Millett; Oct. 21st, 1917. G. D. Floyd; Nov. 14th, 1917. A. McK. Motherwell, G. N. Middleton, R. J. Owen, J. Boydell; Nov. 29th, 1917. W. K. Wilson, W. B. Kelly; Nov. 30th, 1917. R. F. Presland, L. A. Wilkins, C. G. Fraser, A. E. Sweeting, C. J. B. Fox, R. C. Brown, W. H. Arthur; Dec. 3rd, 1917. C. Hallawell, W. F. Hargreaves; Dec. 4th, 1917. C. J. Hall, C. A. Bryant, A. E. I. Clifford, J. G. Schmolle; Dec. 5th, 1917. V. W. H. Hillyard, R. C. D'A. Gifford; Dec. 6th, 1917. The appointment of Temp. 2nd Lieut. J. L. Dunstan, R.A., notified in the *Gazette* of Dec. 13th, 1917, is antedated to Oct. 16th, 1917.

Balloon Company Commander (graded as a Flight Commander).—Lieut. H. A. Laycock, Durh. L.I. (T.F.), from a Balloon Comdr. (graded as a Balloon Officer), and to be Temp. Capt. while so employed; Dec. 10th, 1917.

Balloon Officer.—Temp. 2nd Lieut. (on prob.) C. J. Pell, Gen. List, and to be confirmed in his rank; Dec. 8th, 1917.

Adjutant.—Capt. G. B. McClure, R. Highrs., from Training Res., and to be sec.; Dec. 1st, 1917.

Equipment Officers, 1st Class.—From the 2nd Cl., and to be Temp. Capt. while so employed:—Lieut. G. E. W. Broade, R.E., S.R.; Oct. 19th, 1917. 2nd Lieut. (Temp. Lieut.) W. H. Clover; Oct. 23rd, 1917. Lieut. T. W. Tattersall, S.R.; Nov. 1st, 1917. Temp. Capt. (Temp. Major) E. A. Goodwin, Gen. List, reverts (at his own request) from a special appointment (graded as a Park Comdr.), and relinquishes the rank of Temp. Major; Dec. 10th, 1917, seniority from Aug. 1st, 1916. 2nd Cl.—From the 3rd Cl.—Temp. Lieut. C. C. Barrett, Gen. List; July 12th, 1917. Temp. Lieut. R. Ferguson, Gen. List; Aug. 1st, 1917. Lieut. G. E. W. Broade, R.E., S.R.; Oct. 16th, 1917. 3rd Cl.—2nd Lieut. H. J. Payne; Dec. 1st, 1917. Lieut. F. A. Ormerod, E. Lan. R. (T.F.), and to be sec.; Temp. Lieut. W. H. Hoile, Suff. R., and to be transd. to R.F.C., Gen. List; Lieut. W. R. Kidd, M.C., R. Dub. Fus., S.R., and to be sec.; 2nd Lieut. W. R. Gundry, Durh. L.I. (T.F.), from a Flying Officer; Temp. 2nd Lieut. R. D. Lambert, Cyclist Corps, and to be transd. to R.F.C., Gen. List; Temp. 2nd Lieut. P. S. Woodroffe, attd. E. Kent R., and to be transd. to R.F.C., Gen. List; Dec. 12th, 1917. Temp. 2nd Lieut. (on prob.), Gen. List, and to be confirmed in their rank:—H. L. Doherty; Aug. 5th, 1917. A. Holmes; Oct. 31st, 1917. W. E. Townsend; Nov. 21st, 1917. E. M. Dowson; Nov. 22nd, 1917. W. C. Stribbling; Nov. 27th, 1917. C. S. M. Raikes; Dec. 6th, 1917. H. Barnes-Moss, B. Freeman; Dec. 8th, 1917. S. G. Hurley, F. G. Murray, A. Ford, J. O. Furber, W. Neilson, F. G. Rison, C. H. Strike, P. F. Barrett, A. H. Bull, J. A. Leonard; Dec. 12th, 1917.

General List.—The promn. of Temp. Lieut. E. S. B. Tavener, notified in the *Gazette* of Aug. 31st, 1917, is antedated to July 1st, 1917. Lieut. H. O. Samson, from R. Def. Corps (T.F.), to be Temp. Lieut.; Dec. 8th, 1917. Temp. 2nd Lieut. J. H. Pottinger resigns his commission to resume his medical studies, and is granted the hon. rank of 2nd Lieut.; Jan. 3rd. Temp. 2nd Lieut. G. McDock re-linuates his commn. on account of ill-health contracted on active service, and is granted the hon. rank of 2nd Lieut.; Jan. 3rd. S. S. Moore to be Temp. 2nd Lieut. (on prob.); Nov. 1st, 1917.

Supplementary to Regular Corps.—The relinquishment of his commission by Lieut. (Temp. Capt.) A. M. Low, notified in the *Gazette* of Oct. 19th, 1917, is cancelled; Lieut. (Temp. Capt.) A. M. Low to be employed with Admiralty; Oct. 2nd, 1917.

London Gazette Supplement, January 3rd.

The following appointments are made:—

Wing Commanders.—Capt. (Temp. Major) E. L. Gossage, M.C., R.A., from a Sqdn. Comdr., and to be Temp. Lieut.-Col. whilst so employed; Dec. 5th, 1917. The appointment of Capt. (Temp. Major) R. R. Smith-Barry, S.R., notified in the *Gazette* of Sept. 7th, 1917, is cancelled.

Special Appointment (graded as a Squadron Commander).—Captain D. E. Stodart, S.R., from a Flight Comdr., and to be Temp. Major whilst so employed; Dec. 12th, 1917.

Flying Officers.—2nd Lieut. C. W. Attwood; Nov. 14th, 1917. 2nd Lieut. S. J. Clinch; Nov. 18th, 1917. Temp. 2nd Lieut. (on prob.), Gen. List, and to be confirmed in their rank:—J. D. M. Gray; Nov. 1st, 1917. C. E. Wilmot, B. N. Durant, E. D. MacFarlane, I. Powers, J. Speaks, K. R. Unger; Nov. 5th, 1917. A. C. Oxley; Nov. 7th, 1917. C. I. Fletcher; Nov. 14th, 1917. H. G. D. M. Payne; Nov. 18th, 1917.

Assistant Instructor in Gunnery (graded as an Equipment Officer, 3rd Class).—Temp. 2nd Lieut. (on prob.) C. H. N. Nunn, Gen. List, and to be confirmed in his rank; Sept. 18th, 1917.

Balloon Company Commander (graded as a Flight Commander).—Capt. H. A. Page, S. Staff, R. (T.F.), from a Balloon Comdr. (graded as a Balloon Officer); Dec. 4th, 1917.

Equipment Officers, 2nd Class (from the 3rd Class).—Temp. Lieut. H. C. Roberts, Gen. List, and to be Temp. Capt. (without the pay or allowances of that rank) whilst specially employed; June 1st, 1917. Temp. 2nd Lieut. (Temp. Lieut.) J. G. Spencer, Gen. List; 2nd Lieut. S. L. Collins, S.R., and to be Temp. Lieut. whilst so employed; Nov. 20th, 1917.

Schools of Instruction.—Schools of Military Aeronautics.

Assistant Instructor (graded as a Park Commander).—Temp. Major W. H. Barff, D.S.O., Ches. R., and to be transd. to R.F.C., Gen. List; Sept. 8th, 1917.

Instructor (graded as an Equipment Officer, 1st Class).—Lieut. R. O. C. Bush, R. Dub. Fus., from an Asst. Instr. (graded as an Equipment Officer, 2nd Cl.), and to be Temp. Capt. whilst so employed; Sept. 5th, 1917.

Schools of Special Flying.

Commandant (graded as a Wing Commander).—Capt. (Temp. Major) R. R. Smith-Barry, S.R., as Sqdn. Comdr., and to be Temp. Lieut.-Col. whilst so employed; Aug. 23rd, 1917.

General List.—Temp. 2nd Lieut. H. E. Thomson to be Temp. Lieut.; Oct. 10th, 1917. Temp. 2nd Lieut. relinquish their commn. on account of ill-health, and are granted the hon. rank of 2nd Lieut.:—D. T. Davis, E. B. Mercer Jan. 4th. To be Temp. 2nd Lieut. (on prob.):—G. Clark, C. Edwards, G. B. Heintzman, R. Johnston, Y. B. Sylvester; Oct. 22nd, 1917. A. H. S. Synge Oct. 24th, 1917. L. Richardson, C. W. Rivers, J. T. Rogerson, V. L. Sage; N. B. Scott; Nov. 1st, 1917. C. B. S. Ritchie; Nov. 2nd, 1917. E. H. Flock, Dec. 3rd, 1917. R. F. Cook, C. Elwell, C. Gruchy, P. B. Jones, C. W. O'Brien; D. Scrimgeour, S. A. Sadler, R. M. Weaver, H. J. Weston, F. A. Wood, P. B. Barlow, F. Baxter, F. G. Buck, E. Downer, E. G. Jameson, E. W. Jenkins, H. S. Kilner, E. A. Morrow, J. G. Peacock, G. R. Rankine, A. O'Sullivan, Dec. 6th, 1917. E. Whitmore; Dec. 12th, 1917. C. G. Massy-Dawson, P.; Giblin; Dec. 14th, 1917. G. S. Orr, H. S. Fielding; Dec. 28th, 1917.

London Gazette Supplement, January 4th.

Squadron Commander.—The appointment of 2nd Lieut. (Temp. Capt.) J. C. Callaghan, M.C., R. Muns. Fus., notified in *Gazette* of Nov. 30th, 1917, is cancelled.

The following appointments are made:—

Flight Commander.—Temp. 2nd Lieut. B. P. B. Carter, Gen. List, from a Flying Officer, and to be Temp. Capt. whilst so employed; Dec. 16th, 1917.

Flying Officers.—Lieut. H. L. Holland, Canadian Cyclist Corps; Dec. 8th, 1917. 2nd Lieut. W. L. McKenzie, R.F.A., S.R.; Dec. 9th, 1917. Temp. 2nd Lieut. L. S. Collins, Gen. List; Dec. 17th, 1917. Temp. 2nd Lieut. (on prob.), Gen. List, and to be confirmed in their rank:—F. E. Daniel; Oct. 21st, 1917. R. A. Smith; Oct. 29th, 1917. S. F. Culver; Dec. 3rd, 1917. A. C. Kiddell, W. J. Paull; Dec. 4th, 1917. D. S. T. Pettit; Dec. 6th, 1917. A. T. Laing, J. B. Elliott; Dec. 7th, 1917. T. R. V. Hill, W. C. Tadjell; Dec. 8th, 1917. W. E. Reynolds, B. N. Wills, T. E. David; Dec. 9th, 1917. S. A. R. Solomon; Dec. 10th, 1917. G. S. Dalgleish; Dec. 11th, 1917.

Adjutant.—Lieut. R. B. Waite, Yeo. (T.F.), to be sec., and to be Temp. Capt. (with pay and allowances of Lieut.) whilst so employed; Sept. 15th, 1917.

Equipment Officers, 3rd Class.—Major J. L. McLean, (T.F.) Res.; 2nd Lieut. S. S. Barber, Devon R., S.R., and to be sec.; Dec. 15th, 1917. Temp. 2nd Lieut. (on prob.), Gen. List, and to be confirmed in their rank:—H. L. Nelson; Nov. 12th, 1917. F. R. Richardson; Nov. 15th, 1917. J. H. Lester; Nov. 18th, 1917. H. Svendsen, T. M. F. Tamblin-Watts, R. J. Rogers, E. J. Wilkins, A. Bolton, K. Gray, A. M. Coombs, J. Hardy, A. W. Brittain; Dec. 15th, 1917.

Schools of Instruction.—Schools of Aerial Fighting.

Commandant (graded as a Squadron Commander).—2nd Lieut. (Temp. Capt.) J. C. Callaghan, M.C., R. Muns. Fus., a Flight Comdr., to be sec., and to be Temp. Major whilst so employed; Oct. 21st, 1917.

General List.—Temp. 2nd Lieut. H. E. Bryant relinquishes his commn. on account of ill-health, and is granted the hon. rank of 2nd Lieut.; Jan. 5th. Sgt. L. S. Collins, from R.F.C., to be Temp. 2nd Lieut.; Dec. 17th, 1917. H. F. J. Taylor to be Temp. 2nd Lieut. (on prob.); Dec. 6th, 1917. Cadets to be Temp. 2nd Lieut. (on prob.):—F. Bland, A. H. Hollis, R. S. McKenna, J. R. McKew, R. J. T. Wray; Dec. 13th, 1917.

Memorandum.—2nd Lieut. J. G. S. Thomas, from R.F.C. (Mil. Wing), is transd. to Gen. List for duty with Army Sig. serv.; Nov. 10th, 1917.

Supplementary to Regular Corps.—2nd Lieut. (on prob.) confirmed in their rank:—J. A. McOnie, D. O. Robinson, W. R. Irwin.

London Gazette Supplement, January 5th.

The following appointments are made:—

Staff Officer, 3rd Class (graded as a Staff Captain).—Lieut. (Temp. Capt.) F. G. Stammers, R. Suss. R., from an Adjut., and to retain his temp. rank whilst so employed; Oct. 6th, 1917.

Special Appointment (graded as a Squadron Commander).—Lieut. (Temp. Capt.) E. L. Millar, S.R., from a Flight Comdr., and to be Temp. Major whilst so employed; Nov. 24th, 1917.

Flight Commanders.—From Flying Officers:—Lieut. R. S. P. Boby, Lan. Fus. (T.F.), and to be Temp. Capt. whilst so employed; Dec. 7th, 1917. Capt. T. F. W. Thompson, Welsh R., S.R.; Temp. 2nd Lieut. T. B. Jones, Gen. List, and to be Temp. Capt. whilst so employed; Dec. 17th, 1917.

Flying Officers.—Temp. 2nd Lieut. (on prob.), Gen. List, and to be confirmed in their rank:—E. T. Morrow; Sept. 22nd, 1917. H. Browne; Oct. 21st, 1917.

Adjutants.—Capt. F. Wilkinson, S. Staff, R. (T.F.), from a Balloon Officer, vice Lieut. (Temp. Capt.) F. G. Stammers, R. Suss. R.; Temp. 2nd Lieut. (Temp. Lieut.) E. B. A. Rayner, Gen. List, and to be Temp. Capt. (with pay and allowances as Lieut.) whilst so employed; Oct. 6th, 1917. Capt. W. W. London, Lond. R. (T.F.), and to be sec., vice Capt. R. B. C. M. T. de Poix, Norf. R. (T.F.); Oct. 13th, 1917.

Balloon Commander (graded as a Balloon Officer).—Capt. L. D. A. Dircks, Lond. R. (T.F.), from a Balloon Officer; Dec. 15th, 1917.

Balloon Officers.—Temp. 2nd Lieut. (on prob.), Gen. List, and to be confirmed in their rank:—W. S. Birkett; Dec. 1st, 1917. A. H. Burton, H. H. Myers, C. Davies; Dec. 14th, 1917.

Equipment Officers.—1st Cl.—Lieut. H. H. Thomas, R.F.A. (T.F.), from the 2nd Cl., and to be Temp. Capt. whilst so employed; Nov. 7th, 1917. 2nd Cl.—From the 3rd Cl.:—Oct. 1st, 1917:—Lieut. L. R. Wright, S.R., and to be Temp. Lieut. whilst so employed:—Temp. 2nd Lieut. C. H. Parker, Gen. List; Temp. 2nd Lieut. B. E. Hobbs, Gen. List; Oct. 6th, 1917. Temp. 2nd Lieut. R. S. Eachus, Gen. List; Oct. 11th, 1917. Temp. 2nd Lieut. G. S. Steel, Gen. List; 2nd Lieut. V. A. B. Learoyd, S.R.; Oct. 12th, 1917. Temp. 2nd Lieut. A. L. Pearce, Gen. List; Temp. 2nd Lieut. W. W. Sayer, Gen. List; Nov. 1st, 1917.

2nd Lieut. J. Ferguson, S.R.; Nov. 15th, 1917. 3rd Cl.—Capt. W. H. Stronge, Lond. R. (T.F.), and to be sec'd.; Dec. 1st, 1917. Temp. 2nd Lieuts. (on prob.) Gen. List, and to be confirmed in their rank:—J. P. Crichton; Oct. 27th, 1917. L. G. Sewell; Dec. 12th, 1917. G. W. A. Watson, L. G. Morris; Dec. 15th, 1917.

Schools of Instruction.—Schools of Military Aeronautics.

Assistant Commandant (graded as a Park Commander).—Temp. Major A. C. E. S. Bowlby, Gen. List, a Flying Officer; Nov. 17th, 1917.

School of Technical Training.

Commandant (graded as a Depot Commander).—Lieut.-Col. J. Attenborough, C.M.G., Lond. R. (T.F.); Dec. 7th, 1917.

Assistant Instructor (graded as an Equipment Officer, 3rd Class).—Temp. Lieut. J. W. Lawlor, Gen. List, a Flying Officer; Dec. 12th, 1917.

General List.—Capt. E. C. Carver, D.S.O., ret. R.N., to be Temp. Major; Jan. 5th. Temp. 2nd Lieuts. Gen. List, to be Temp. Lieuts. whilst serving with R.F.C.:—G. W. Doolittle, H. A. R. Biziau, H. H. Berry, W. S. Wright, A.

Baillie, G. D. Buckeridge, A. W. Wood, G. C. Holman, E. A. Welch, A. McKim-mie, W. W. Scott-Davidson, S. T. Payne, A. Ralphs, H. C. Calvey, T. Langwill, P. W. Chambers, G. H. Haydock, L. C. Tyson, M. A. S. Vaile, C. G. Eccles, J. R. S. Proud. Now Temp. Capt. :—J. A. Slater, C. J. Dickinson, H. O. W. Hill, A. C. Randall; April 1st, 1917. Temp. 2nd Lieuts. relinquish their com-mns. on acct. of ill-health contracted on active service, and are granted the hon. rank of 2nd Lieut. :—H. M. Gardiner, E. W. Larby; Jan. 6th. The surname of Temp. 2nd Lieut. E. O. Ockerby is as now described, and not as in *Gazette* of Aug. 8th and Nov. 30th, 1917. To be Temp. 2nd Lieuts. :—Sgt. E. H. Welford, from R.F.A. (T.F.); Nov. 30th, 1917. Sgr.-Major R. Adams, from Training Res.; Dec. 28th, 1917. To be Temp. 2nd Lieuts. (on prob.) :—N. L. S. Kilpin; Oct. 23rd, 1917. M. L. Dobbin; Oct. 25th, 1917. S. V. Daley, late Sub-Lieut., R.N.R.; Nov. 27th, 1917. V. P. Pereth; Dec. 3rd, 1917. H. O. Keenan; Dec. 6th, 1917. J. B. Martin, late 2nd Lieut., R.F.C. S.R.; Dec. 14th, 1917. H. Webb; Dec. 28th, 1917.

Supplementary to Regular Corps.—2nd Lieut. (on prob.) L. V. Rothschild is confirmed in his rank.



AIRCRAFT WORK AT THE FRONT.

OFFICIAL INFORMATION.

British.

General Headquarters, January 1st.

"On December 31st very little flying was possible, owing to the mist. During the night, although the improvement in the weather was slight, our aeroplanes dropped over 100 bombs on hostile billets in the neighbourhood of Roulers and Menin. Several direct hits were obtained, and a train in movement was also bombed and hit. All our machines returned."

War Office, January 1st.

"Italian Front.—British artillery and aircraft continue their efforts daily to destroy the enemy's batteries."

"In retaliation for the loss they suffered on December 26th, when they lost 11 machines, enemy aircraft have been very active lately in bombing raids. The damage inflicted by their bombing raids has been slight."

"Salonica.—Our aeroplanes have bombed Mirsla and Bujukmah (west of Demirhissar) and Tchernishte (west of Lake Doiran)."

General Headquarters, January 2nd.

"On the 1st inst., our aeroplanes were very active. Much registration work was carried out with the artillery, and many photographs were taken of the enemy's front lines and back areas. Over 200 bombs were dropped by us on various targets, including a large ammunition depot near Courtrai and Ingelmünster aerodrome. In air fighting two hostile machines were brought down and two others driven down out of control. Another hostile machine was shot down in our lines by our anti-aircraft guns. One of our aeroplanes is missing."

War Office, January 3rd.

"Italian Front.—Our artillery have carried out several successful destructive shoots on enemy batteries since my last communiqué, and splendid work is being done by our R.F.C., who have destroyed several enemy aircraft, and have successfully carried out several bombing raids and long distance reconnaissances."

"The enemy is continuing his bombing activity at right on undefended towns."

General Headquarters, January 3rd.

"On the 2nd instant thick mist greatly hindered the work of our aeroplanes, but during the night a few bombs were dropped by us on Carnin in spite of very bad weather. One hostile machine was brought down in air fighting."

War Office, January 4th.

"Mesopotamia.—During the last week of December our aeroplanes dropped bombs on a Turkish camp at Kifri and fired into another camp at Chaman Kupri, 13 miles south of Kifri; we bombed also the Turkish aerodrome near the junction of the Lesser Zab with the Tigris. During the night of December 30th-31st Turkish aeroplanes dropped bombs near Samarra and Kizil Robat, but with insignificant results."

"Palestine.—A successful bombing raid has been carried out at Afuleh, direct hits being obtained on rolling stock, hangars, and camp. One machine was shot down."

General Headquarters, January 4th.

"The fine weather on the 3rd instant led to great aerial activity on both sides. Our aeroplanes observed for the artillery throughout the day, and took a great many successful photographs both in the enemy's forward and back areas. A total of 200 bombs were dropped on two hostile aerodromes, on Ledeghem railway junction, on hutments in the neighbourhood of Houthulst Forest, and on billets south of Lille. Six hostile aeroplanes were brought down in air fighting, and two others were driven down out of control. Three of our aeroplanes are missing."

"During the night of the 3rd-4th instant, further 300 bombs were dropped on six of the enemy's aerodromes, including Gontrode aerodrome. Successful raids were also carried out, in spite of very bad weather, against the factories at

Fatal Accidents.

2ND LIEUT. W. WILCOX, who returned from the front recently, was killed in an eastern county on January 1st through his machine falling from a height of 200 feet.

Lieut. J. R. Nickson, R.F.C., the pilot, and Lieut. W. S. Ely, R.F.C., were killed while flying on January 2nd, at Wytham, near Oxford.

Sec. Lieut. Cumberland, R.F.C., was killed while flying over Tarporley, on January 3rd.

Evidence was given by Colonel Greene Cherry at the inquest on January 7th on Capt. Durrant Capper, who was killed in a flying accident in Essex, that immediately after getting into the air the engine went wrong, and in a forced descent at a bad place, a gust of wind caught the machine and swung it into a tree. The jury returned a verdict of accidental death, and expressed the view that the pilot was not to blame.

Lieut. Cecil Olcher Feddon, Ind. Inf., att'd. R.F.C., was killed on January 7th while making a flight during a snow-storm. He was obliged to descend into the North Sea, and died of exposure before he could be rescued. Lieut. Feddon was an experienced pilot, and had seen service in Mesopotamia and on the Western front, and had been wounded.

Maizières-les-Metz, the railway communications at Woippy, and the railway junction at St. Privat, all of which are in the neighbourhood of Metz. All our machines returned."

French.

Paris, December 31st.

"Salonica.—French airmen dropped bombs on the station of Mrzentzi."

Paris, January 1st.

"During aerial fighting in the last few days Sub-Lieut. Guerin and Lieut. Hugues each brought down his 10th German aeroplane."

Paris, January 2nd.

"Our pilots, in the course of numerous aerial fights, brought down during yesterday four German aeroplanes, and in addition two other enemy machines, which were seriously damaged, fell in their own lines."

"Salonica.—Enemy aeroplanes bombarded ambulances behind the Monastir front."

Paris, January 4th.

"During yesterday our pilots brought down two German aeroplanes and a captive balloon. Six other enemy machines fell in their own lines as the result of air fights. The same day our squadrons bombarded the factories of Rombach and the railway stations of Metz-Sablons, Conflans, Arnaville, &c. Seven thousand five hundred kilogrammes (about 7½ tons) of projectiles were dropped in the course of these expeditions."

Belgian.

Havre, January 4th.

"Enemy airmen dropped torpedoes and bombs towards one of our hospitals in the region of Adinkerke."

Italian.

Rome, January 1st.

"During the night enemy airmen attacked the aviation camp of Istrana and repeated the aggression against inhabited and open cities. Vicenza, Bassano, Castelfranco, and Treviso were bombed. Altogether we have registered 13 dead and 44 wounded, for the most part belonging to the civil population. The damage is slight. Our air squadrons bombarded enemy aviation camps. Two hostile machines were brought down during the day by French and British airmen."

Rome, January 2nd.

"Airmen and English batteries brought down three enemy aeroplanes, and two others fell down as the result of aerial battles with the Italian and French airmen. During the course of the night enemy airmen dropped a few bombs on Mestre and Treviso, without causing any damage or victims. They also bombed Bassano, where the death of one person and the wounding of five others and slight damage must be deplored. Our squadrons bombed the aviation camps at La Comina and Aviano, causing extensive fires. Enemy movements at the railway station of S. Stino de Livenza and the barracks have been bombed effectively by one of our dirigibles."

Rome, January 3rd.

"During the night of January 1st-2nd enemy airmen dropped bombs on Castelfranco, Veneto, obtaining direct hits on two hospitals. Eighteen of the patients were killed."

German.

Berlin, January 4th.

"Since January 1st the enemy has lost in aerial fighting and by gunfire 23 aeroplanes and two captive balloons. First Lieut. Loerzer obtained his 20th victory in the air."

Turkish.

Constantinople, January 4th.

"The enemy undertook air attacks against Afuleh."

Bombs on Dutch Territory.

THE Dutch Foreign Office, in a communiqué issued on January 3rd, stated that enquiry had shown that the bombs dropped at Goes, in the province of Zeeland, on December 22nd fatally injuring one resident, were entirely different in construction from those found in former cases, but that a label found on one of the stabilisation wings bore an English inscription. "The bombs were, therefore," the communiqué proceeds, "evidently of English make. The Dutch Minister in London has been charged to request the British Government to institute a thorough enquiry into the question whether this violation of Dutch territory was committed by a British airman."

And Some on Switzerland.

SHORTLY before seven o'clock on January 6th, several incendiary bombs were dropped in the neighbourhood of the railway station at Kallnach (Berne), which is situated a few miles from the lake of Neuchatel, on the railway from Morat (Freiburg) to Lyss (Berne). There were no casualties, and the material damage was confined to the destruction of telegraph wires and the shattering of window panes. As no aeroplane was visible the nationality of the aggressor remains a mystery. Fragments of the bomb have been forwarded to the authorities for examination. A military train having left the station shortly before the bombardment, it is thought that this may have attracted the airman, who apparently had lost his bearings.

SIDE-WINDS.

AEROPLANE GENERAL SUNDRIES, LTD. (generally known as A.G.S.) appear to be one of those firms which have risen up from the deep to help in times of trouble, and from all accounts have done a great deal of business during the past year, which is their first year in the aircraft industrial world. It will not be out of place to mention that this is another instance of women's work during the war, as the managing director is no less than Miss D. N. Nicholson, who is also the founder of the business. We understand that they are marking the New Year by opening a works where some of the small parts always in demand and produced on Capstans will be manufactured in quantities. In addition to their usual stock letter published every other Thursday (this month on the 10th and 24th), they are giving away with the last stock letter in each month a neat blotter calendar, which they are issuing by way of keeping their name and business constantly before their customers. Extra copies of this blotter will always be available, and can be obtained from the company's office, Fulwood House, Fulwood Place, Holborn. Telephone 4959 Holborn.

Now that water-cooled engines are so much in demand, the radiator is a most important accessory. It is, therefore, of interest to note that Messrs. Alex. Mosses, Ltd., of Mercer Street, Long Acre, W.C.2, have now entered the aircraft industry, by opening up an aircraft radiator department, which they have equipped with the very latest type of plant and machinery. It has been organised with the idea of making that firm eventually the largest manufacturers of aircraft radiators in London. In addition to the manufacture of aircraft radiators, they intend undertaking all kinds of aeroplane sheet-metal work and radiator repairs. Mr. H. L. Sceales, who has been appointed manager of the aircraft radiator department, has been connected with the aircraft industry for the past ten years, and has had a very considerable experience in the manufacture of aeroplane radiators. We wish him every success in his new undertaking. During a conversation with Mr. Alex. Mosses and Mr. George Hollands, we were pleased to find how wholeheartedly Messrs. Alex. Mosses, Ltd., intend going into the aircraft industry, and we understand that they intend shortly to place on the market a new design honeycomb radiator for aeroplanes and dirigibles which has been invented by Mr. Sceales.

HAVING vacated their Belmont Row premises in Birmingham, the Palmer Tyre, Ltd., are now installed in their new showrooms, depôt and offices at Broad Street Chambers, where all Birmingham enquiries and communications should now be addressed.

ALTHOUGH it was their first function of the kind, the Social, Dance and Whist Drive held on December 27th by the employees of Messrs. Adam Grimaldi and Co. turned out most enjoyable. An excellent programme had been arranged by the Social Committee, and everything went with a swing until "Auld Lang Syne" was reached. Of those who contributed to the musical side mention must be made of Miss Pal-

mer, Miss P. Tipping, Miss Beer, Miss Haynes, Messrs. Mintern, H. Joy, W. J. House, Victor Williams, Beale, Ford and E. Smith, it being revealed that there is a good deal of "talent" among the employees of the firm. For the dance Mr. Archibald Joyce's band was engaged, and the programme provided an opportunity for a display of the vitality and hard going which is characteristic of both management and employees at work or play, and was a fine demonstration of the democratic spirit which prevails in the firm. The Chairman of the Social Committee, Mr. Lloyd, in a spirited and tactful speech, moved a vote of thanks to the firm on behalf of the employees. Mr. Adam, in his genial and breezy reply, uttered some wholesome home-truths which were much appreciated. The Whist Drive took place in the Lower Hall, Mr. E. Simons and Mr. J. A. Cummings winning First and Second Gent.'s, also Mr. H. Ghirardi and Mr. J. Austin winning First and Second Ladies'. Mrs. Grimaldi presented the prizes at conclusion.

THE second annual Christmas party of the workpeople of the Sphinx Manufacturing Co., Bradford Street, Birmingham, was a notable success, and the few hours spared from a strenuous period of work for social enjoyment were well spent, and, it was easy to see, were thoroughly enjoyed by the three to four hundred persons present. The inception and arrangement of the party were entirely due to the workpeople, and with few exceptions the whole of the artistes were workpeople, forming a concert party who visit the various military hospitals of the district. Private A. Edgerton, Royal Welsh Fusiliers, one of the numerous employees in khaki, contributed to the first part of the programme an effective Indian club solo with electric light effects. Another clever item was the set of Swedish dances by Misses D. Lines, D. Higgott, W. Webb, and M. Heath, also with electric light effects. After an interval a comedietta, "Well Matched," was given, followed by Living Pictures, arranged by Mr. Walter J. Morgan, R.B.A., of the Royal Society of Artists. The numerous characters were impersonated by Sphinx people, thus giving added interest. Fitted into the scenery of the stage was a large-sized gilt frame, behind which stood the subject, the effect produced being that of a beautiful oil painting. The series was watched with keen interest, and followed by loud applause. A series of games terminated a very happy evening.

THE scope of the company's business having during recent years been greatly extended, and now embracing all branches of the acetylene industry as applied both to acetylene welding and acetylene lighting in all fields, the title of the Acetylene Illuminating Co., Ltd., has been changed to the Acetylene Equipment Co., Ltd. This change involves no alteration in the existing directorate or management, and they trust that under the new name the good relations hitherto existing between them may continue.

By a slip Messrs. Accles and Pollock were last week included in our Buyers' Guide under the heading "Tubing—Brass and



□ □ □ □ □ □ □ □ □ □

Aeroplane Workers
in America.—A
batch of "bloomer"
girls of the B.F.
Goodrich Co. who
did most of the work
in assembling the
Goodrich "blimp"
gasbag.

□ □ □ □ □ □ □ □ □ □

Copper." Although it is well known to most people that they confine their activities to steel tubing and steel press-work parts, it may be as well to make it clear that they are not makers of brass and copper tubing.

CONSEQUENT upon the removal of the head offices of the Stanley Aviation Co. to the works, all communications for the firm should now be addressed to them at Chatham Place, Morning Lane, Hackney, N.E. The telephone call is Dalston 45.

WE were interested to hear from Mr. Gregg, the General Manager of Leo Ripault and Co., of 64A, Poland Street, W., the other day of the continued success of the Olco plug in France. One consequence is that arrangements are now being made for the manufacture of Oleos in Great Britain and America.

A NEWCOMER to the industry is the Birch Aircraft Co., of 169-171, High Road, Willesden Green, which is specialising on Avro metal parts and undercarriages. Mr. Birch, the founder, has had a long experience in aircraft work having been in the early days with the Grahame-White Co., migrating later to Messrs. Boulton and Paul and then to Nieuports. They have set out to keep up to date with deliveries, and we understand this resolve has been well maintained in respect of their first contract.

1918 POCKET DIARIES, CALENDARS, &c.

AMONG the many useful and novel items which have reached us to mark the opening of a New Year is a handy little memo. tablet for the waistcoat pocket from the Wooler Engineering Co., Ltd., Old Oak Common Lane, Willesden Junction, N.W. 10. It is fitted with a spring clip which permits of the easy replacement of the block when the old one has been filled.

From R. T. Lang, of Sells, Ltd., 168, Fleet Street, London, E.C. 4, the specialist in advertising in all its branches, comes a daily office calendar of the slip-off kind. Each slip, besides giving the times of sunrise and sunset and similar information with regard to the moon, also has a verse gathered from the poets.

Clear and practical is the monthly tear-off wall calendar which has been got out by Messrs. Jos. Freeman, Sons and Co., Ltd., of Garratt Lane, Wandsworth, S.W. 18. Although the specialities for which this firm are renowned are noted on the calendar, they are not too obtrusive, and the figures of the calendar stand out clearly. Messrs. Freeman, Sons and Co. have reserved some copies for aircraft firms, and any one who has not yet received a copy should make application at once.

Useful and practical is a little desk mirror to hand from Brown Brothers, of Great Eastern Street, E.C. It comprises a calendar which is ingeniously adjusted month by month, the change being the work of an instant.

From Messrs. G. D. Peters and Co., Ltd., of Windsor Works, Slough, comes a charming little pocket diary in blue leather, carrying with it a £1,000 insurance policy and providing that necessary "Visibility" space on the back which saves so much delay when "All Seasons" is the morning or evening greeting. The extreme modesty of the firm's imprint inside, is not the least pleasing feature of the Diary.

The 1918 Daily Booklet of Mr. H. Llewellyn Dent, of Haydon Park Works, Shepherd's Bush, is in maroon leather, and is both roomy in its pockets and useful in its practical contents, including as it does tables of British Standard Whitworth and other threads, weights of round metal bars, and fractions, Decimal and Metric equivalents. Here again the unobtrusiveness of the donor's business is a striking note of the character of the firm. Mr. Dent will be pleased to send one of these handsome pocket books to any responsible applicant associated with the aviation industry.

"Bomilo's Aeroplani" remind us of their existence with a delightfully designed calendar, in distinct Italian taste.

Messrs. Cellon, of Dope fame, have thoughtfully supplied refills for their admirable one-day desk calendar, which they generously distributed last year. This is much appreciated, it being of a really practical design.

Steel and Iron Scrap.

THE Ministry of Munitions has issued a notice of the modification of the General Permit regarding dealings in steel and wrought-iron scrap. Two schedules of maximum prices, with particulars of the conditions governing dealings in scrap, are attached to the notice. Communications about the matter should be addressed to the Controller of Steel Production (Room 381), Ministry of Munitions of War Whitehall Place, London, S.W. 1.

NEW COMPANIES REGISTERED.

Private Companies.

CAMBRIAN AIRCRAFT CONSTRUCTORS, LTD.—Capital £110,000, in 100,000 cumulative and participating preference shares of £1 each and 200,000 ordinary shares of 1s. each. First directors: T. W. David, D. Morgan Rees, G. G. A. Wilkins and T. L. Demery.

KERSLAKE, LTD., 124, Cromwell Road, South Kensington, S.W.—Capital £1,000, in £1 shares. Aeroplanes, aircraft and fittings manufacturers, &c. First directors: W. H. Heath, E. C. Kerslake and M. D. Tomlin.

SMITH AND EWEN (AEROPARTS), LTD., 42, Frederick Street, Birmingham.—Capital £5,000, in £1 shares. Engineers manufacturers of and dealers in aeroplanes, &c.

BUSINESS NAMES REGISTRATIONS.

B.S.D. AIRCRAFT CO. (106,263).—Registered November 16th, 1917. Constructors of aircraft, ship and motor launch builders and general steel and iron workers, 8, Eden Street, Kingston-on-Thames, Surrey. Partners:—(1) C. G. Barber (British), same address, (2) Jules Smidts (Belgian), same address; (3) Emile De Deckers (Belgian), same address.

C. W. BROWN'S AEROPLANE ACCESSORIES CO.—Registered November 16th, 1917. Aeroplane fittings dealers and general engineers. 46, East Street, Baker Street, W. Other business name: C. W. Brown and Co. Partners: (1) C. W. Brown (British), 58, Warrington Road, Harrow-on-the-Hill; (2) F. W. Jacques (British), 33, Northumberland Place, Bayswater, W.

COVENTRY AVIATION CO.—Registered November 17th, 1917. Manufacturers of metal aeroplane and other parts. 34A, Earl Street, Coventry. Partners: (1) Wm. B. Jennings (British), 16, Lansdowne Circus, Leamington; (2) John N. Parr (British), 16, Stag Lane, Edgware; (3) L. B. Booth (British), Fieldgate Close, Kenilworth.

PUBLICATIONS RECEIVED.

Desk Calendar and Mirror, 1918. Brown Brothers, Ltd., 22-34, Great Eastern Street, London, E.C.

Staining and Polishing. (The Woodworker Series.) London: Evans Brothers, Ltd., Montague House, Russell Square, W.C. Price 3s. 6d. net.

Calendar, 1918. Aeroplani Pomilio, Turin, Italy.

Desk Almanack, 1918.—R. T. Lang, Sells, Ltd., 168, Fleet Street, E.C. 4.

The Strand Magazine: January, 1918. London: George Newnes, Ltd. Price 9d. net.

A Short Course in Elementary Mathematics and Their Application to Wireless Telegraphy. By S. J. Willis. London: The Wireless Press, Ltd., Marconi House, Strand, W.C. 2. Price 3s. 6d. net.

Aeronautical Patents Published.

Applied for in 1916.

The numbers in brackets are those under which the Specifications are printed and abridged, &c.

Published January 10th, 1918.

16,529 C. I. ADAMS and S. MACHIN. Revolving-cylinder I.C. engines. (111,874.)

Applied for in 1917.

The numbers in brackets are those under which the Specifications are printed and abridged, &c.

Published January 10th, 1918.

3,331 C. A. Christianson. Aeroplanes, seaplanes, &c. (111,958.)
10,538 R. J. SMITH. Device for Destroying aircraft from higher elevation. (111,981.)

If you require anything pertaining to aviation, study "FLIGHT'S" Buyers' Guide and Trade Directory, which appears in our advertisement pages each week (see pages lxxii, lxxiii and lxxiv).

FLIGHT

and The Aircraft Engineer.

36, GREAT QUEEN STREET, KINGSWAY, W.C. 2.

Telegraphic address: Truditur, Westcent, London.

Telephone: Gerrard 1828.

SUBSCRIPTION RATES.

"FLIGHT" will be forwarded, post free, at the following rates:—

UNITED KINGDOM.		ABROAD.	
	s. d.		s. d.
3 Months, Post Free..	3 10	3 Months, Post Free..	5 0
6 " " " " " "	7 7	6 " " " " " "	10 0
12 " " " " " "	15 2	12 " " " " " "	20 0

Cheques and Post Office Orders should be made payable to the Proprietors of "FLIGHT," 36, Great Queen Street, Kingsway, W.C. 2, and crossed London County and Westminster Bank, otherwise no responsibility will be accepted.